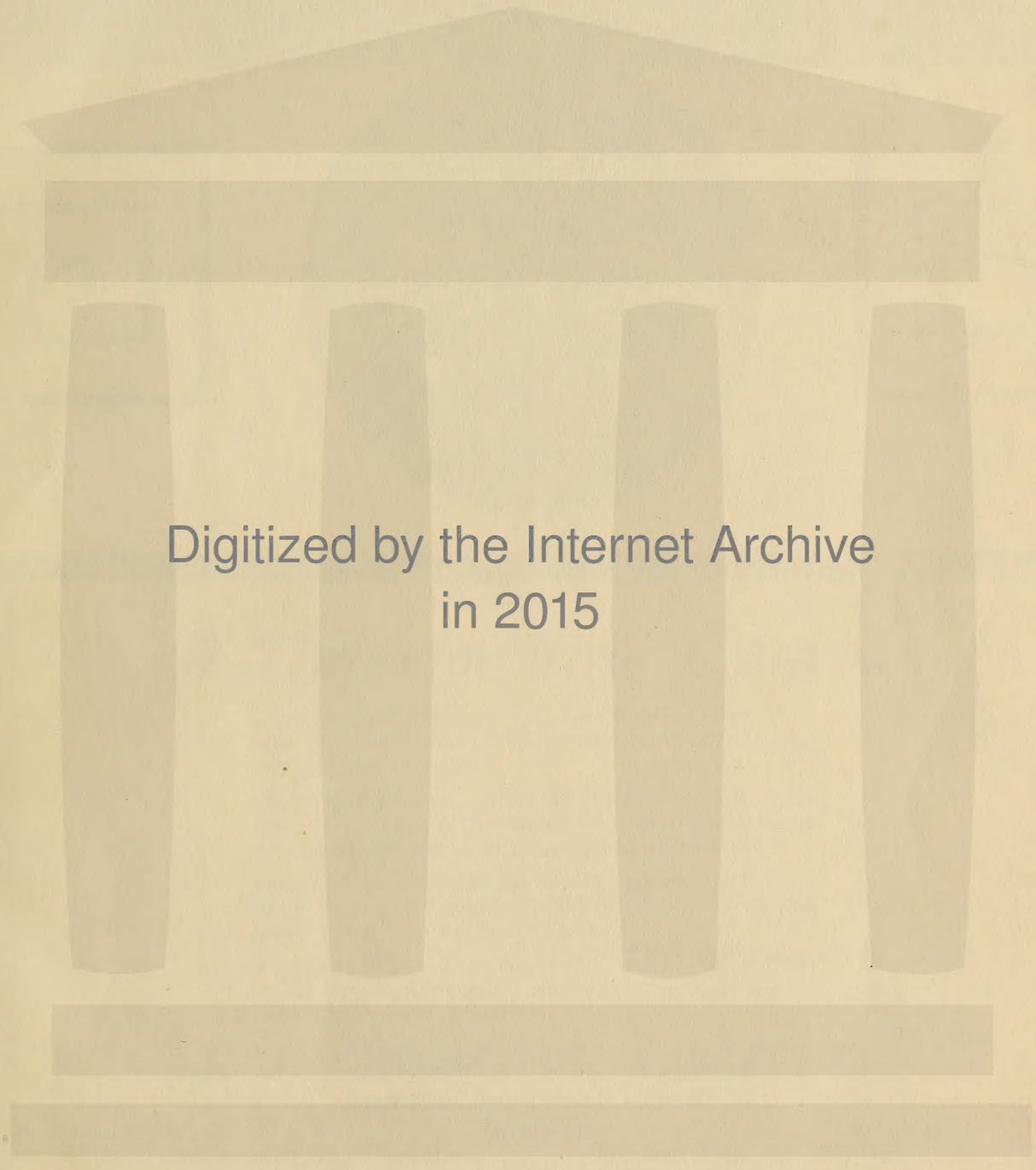
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Vol. XX., No 7 TORONTO, NOVEMBER, 1919 - $2.00 per Year

April, 1920

INDUSTRIAL CANADA

A Time for Safe Counsel

Canadian industries never had greater need than now for sane and circumspect counsel in their advertising policies.

Under-production, public distrust born of the high cost of living, readjustment to conditions—these are problems war has bequeathed to industry.

Never was advertising more necessary — but never was there greater need for expert guidance and careful handling.

Twenty years' experience in industrial advertising under varying conditions qualify us to help you at this juncture.

245-312
16:7:30

J. J. GIBBONS, LIMITED

General Advertising Agents

MONTREAL TORONTO WINNIPEG

Cables—Gibjay, Toronto Codes—ABC, 5th Edition

PUBLISHED BY THE CANADIAN MANUFACTURERS ASSOCIATION INCORPORATED.

HEAD OFFICE · TORONTO · BRANCH OFFICES, MONTREAL, HAMILTON, WINNIPEG, VANCOUVER, HALIFAX, QUEBEC.

STEEL PLATE CONSTRUCTION

Oil Storage, Gasoline Tanks, Air Receivers, Pneumatic Water Supply Tanks, Smoke Stacks, Boiler Breeching, Riveted Steel Pipe, Bins and Hoppers. Heavy and light steel plate construction erected anywhere.

We Invite Your Inquiry

THE
TORONTO IRON WORKS
LIMITED

HEAD OFFICE: ROYAL BANK BLDG. TORONTO WORKS: CHERRY STREET

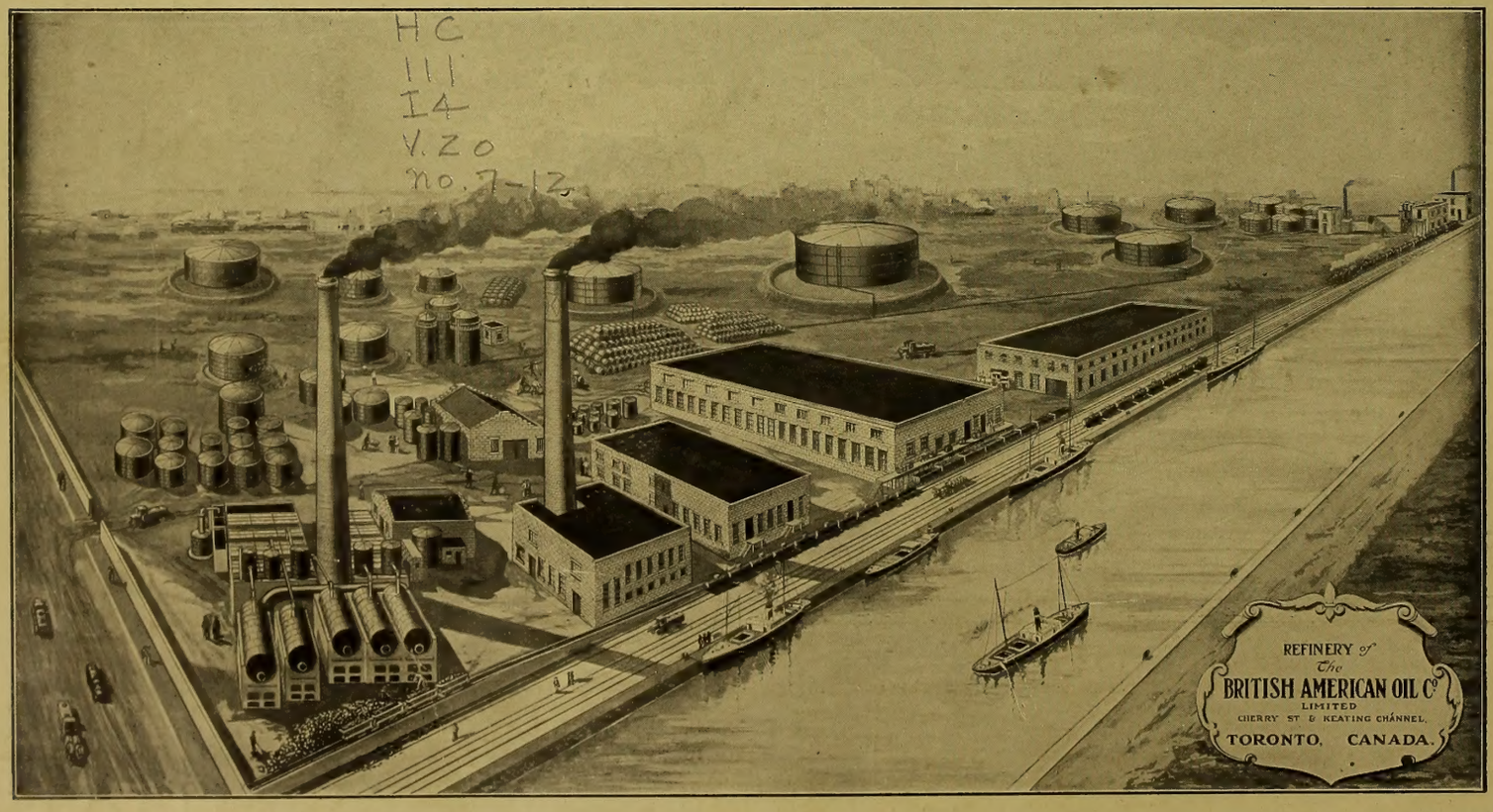


QUALITY FIRST

GALT KNIFE CO., LIMITED

GALT - - - ONTARIO

THE BRITISH AMERICAN OIL CO., LIMITED



Head Office: ROYAL BANK BUILDING, TORONTO

Branches: Montreal, Ottawa, London, Windsor, Etc.

Bronze to Bronze

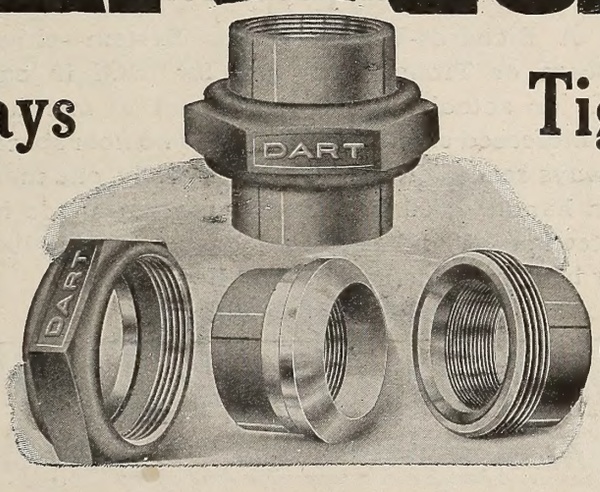
Dart Unions are the Economical Connection for Pipe Lines

After once installed they need no further attention. Their first cost is the ***only*** cost.

You don't scrap Dart Unions, use again. Repeated use does not affect their efficiency.

DART UNIONS

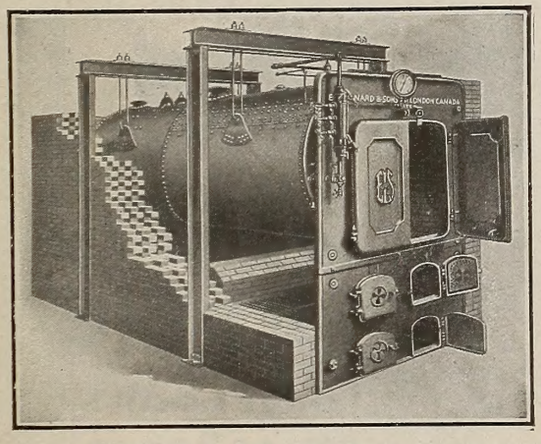
Always Tight



It's the "Bronze to Bronze at the Joint" and the Heavy Malleable Iron features that are responsible for the Dart's remarkable durability.

ORDER FROM YOUR JOBBER

Manufactured by
Dart Union Co., Ltd., Toronto



Steam Boilers
Hot Water Boilers
Locomotive Boilers
Marine Boilers
Portable Boilers
Return Tubular Boilers
Stationary Boilers
Horizontal Boilers
Vertical Boilers

Boiler Grate Bars
Shaking Grate Bars
Flat Grates
Sawdust Grates
Water Feed Heaters
Boiler Plate Tanks
Steel Tanks
Pressure Tanks

Grey Iron Castings
Heavy Iron Castings
Manhole Castings
Pulp Digesters
Corliss Engines

Portable Engines
Gas Tractor Engines
Plowing and Threshing Engines
Saw Milling Engines
Stationary Engines

Horizontal Engines
Vertical Engines
Boiler Feed Pumps
Fly Wheels
Gear Wheels
Grooved Wheels

E. LEONARD & SONS, LIMITED

London - Ontario

Index to Advertisements.....Page 39 Contents.....Page 41

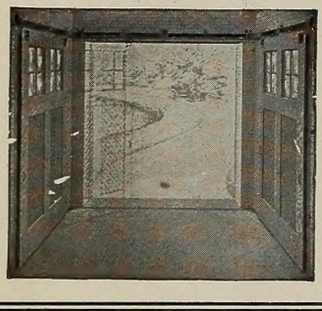


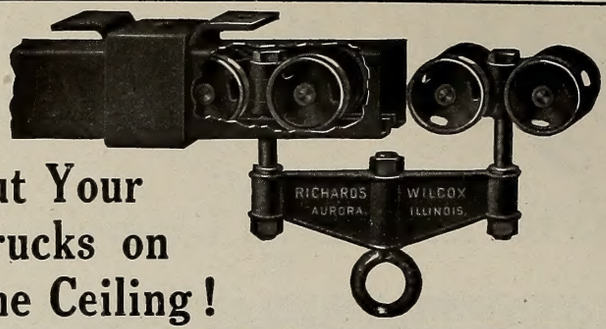
BULLDOG STEEL JOIST HANGERS

They never let go! Stronger than malleable. All sizes and styles for all kinds of work. Save space and time in erection.

GARAGE DOOR HARDWARE OF ALL KINDS FOR ANY PURPOSE

Angle Doors, Parallel Doors, etc. Special jobs receive the prompt attention of our engineering department. Let us know your requirements.





Put Your Trucks on The Ceiling!

The Modern Method of Factory Transportation

A Richards-Wilcox Carrier System---either I-Beam or Trolley---will pay for itself in one year on actual pay-roll saving, not to mention the increased efficiency. Occupies no floor space. Always ready for use. Operates easily, one man can handle 2,500 lbs. Trolley carriers made in sixteen styles and sizes for loads up to 2,500 lbs. For heavier loads use I-Beam Equipment.

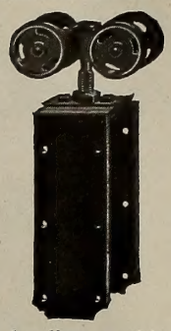
Catalogs Upon Request

Richards-Wilcox Canadian Co. Ltd.

AURORA BOSTON NEW YORK CHICAGO London Ontario PHILADELPHIA MINNEAPOLIS SAN. FRANCISCO ST. LOUIS

"A hanger for any door that slides"

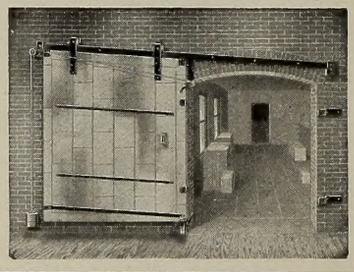
"R-W" TROLLEYS ARE BEST FOR ALL SLIDING DOORS

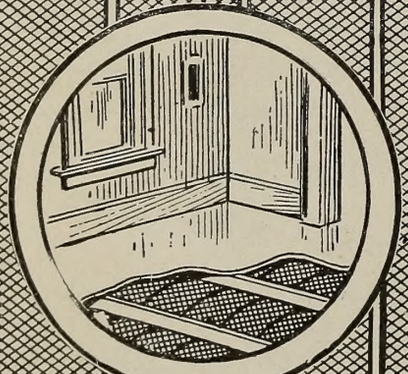


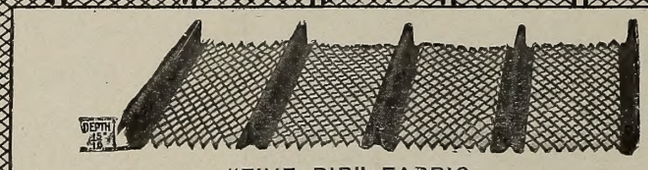
Specified by leading architects and engineers throughout Canada and the United States. "A hanger for any door that slides."

FIRE DOORS AND FIRE DOOR HARDWARE WITH UNDERWRITERS' LABEL

All styles, single or double, sliding or swinging. A fire door with labeled hardware is the surest way to prevent fire from spreading.







"FIVE RIB" FABRIC.

PEDLAR'S RIB FABRIC

FOR FLOORS WALLS, ROOFS PARTITIONS

Reduces Cost By Eliminating Forms and Centering

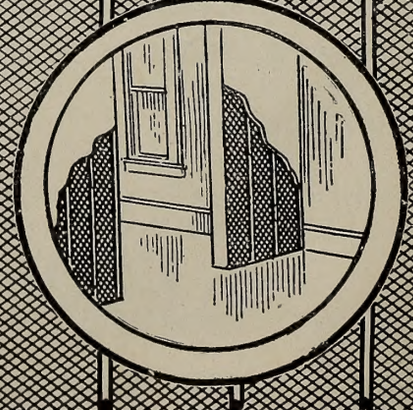
For all kinds of fire-proof building construction — floors, roofs, walls, partitions, ceilings, etc., the use of Pedlar's Rib Fabric not only results in perfect work, but in reduction of cost. The diamond shaped expanded metal mesh is stiffened by rigid high ribs, the whole being cut and drawn from one sheet of steel. In concrete floors and roofs, the ribs give the necessary strength and rigidity. In sidings and partitions, Pedlar's Rib Fabric does away with channels and studs—it is a lath and studding all in one, with a straight and true lath surface that provides a perfect clinch while requiring the minimum quantity of plaster.

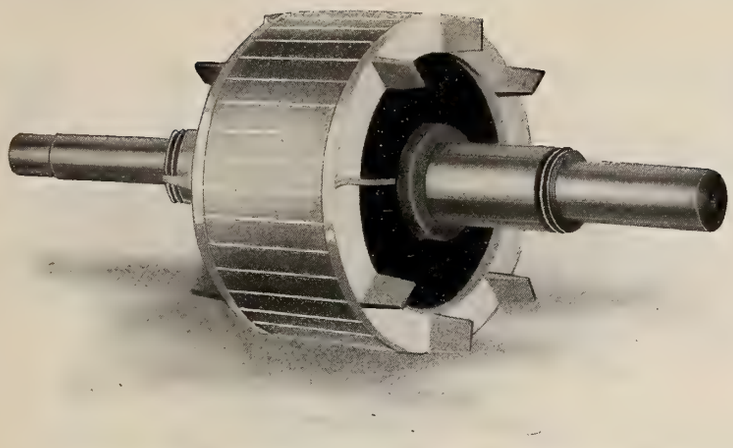
Write For Rib Fabric Booklet I.C.

THE PEDLAR PEOPLE, LIMITED

Established 1861 Executive Offices and Factories: OSHAWA. ONT.

Branches: Montreal Quebec Ottawa Toronto Winnipeg Vancouver





Canadian Crocker-Wheeler Cast Winding Squirrel Cage Rotor.
Smaller Motor Type.

Ask Your Electrical Friend---

WHAT HE THINKS OF THIS NEW CANADIAN CROCKER-WHEELER CAST WINDING SQUIRREL CAGE ROTOR. THE BARS AND SHORT CIRCUITING RINGS AND FANS ARE ALL OF THE SAME MATERIAL AND ARE CAST IN A SINGLE OPERATION.

Canadian Crocker-Wheeler Apparatus and Service are available at all N.E. Co. Branches as follows.
Montreal Halifax Ottawa Toronto London
Winnipeg Regina Calgary Vancouver

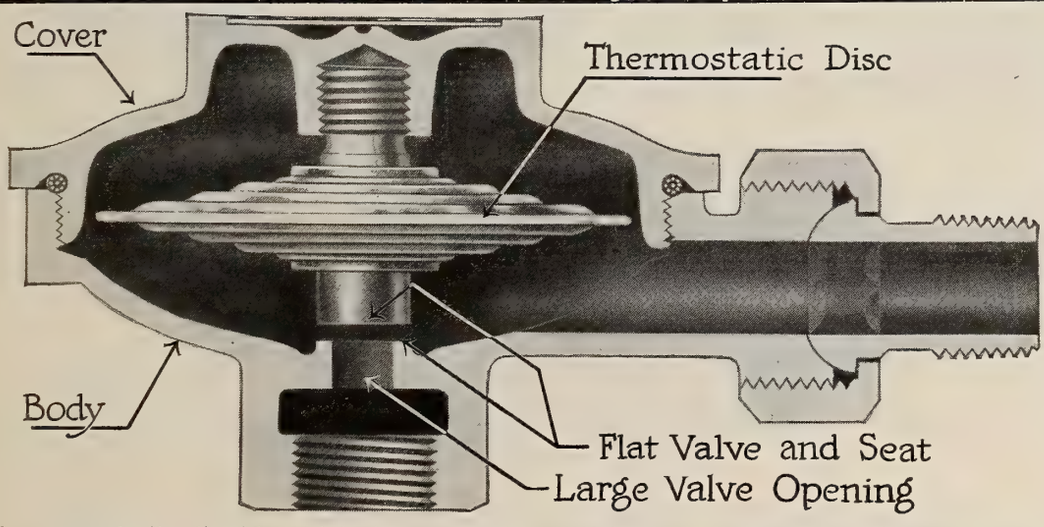
Northern Electric Company
LIMITED

THE CANADIAN
CROCKER-WHEELER COMPANY
LIMITED

Head Office and Works:
ST. CATHARINES, ONT.

Manufacturers and Electrical Engineers

District Offices:
TORONTO and MONTREAL



Inside Facts

The cover and thermostatic disc are securely fastened together: therefore there are only two major parts to a Dunham Radiator Trap. The disc is of special composition phosphor bronze, enclosing a volatile liquid which is extremely sensitive to temperature changes over a wide range—10 pounds pressure to 15 inches of vacuum. No adjustments are ever needed: we do that at the factory.

The DUNHAM HEATING SERVICE

The above illustration shows *all* of the trap. Note the absence of loose parts in the path of flow: there are no sliding contracts, nothing to gum up, no guide or pin. The valve seats squarely. No wonder that the efficiency of the Dunham Radiator Trap equals its simplicity.

The complete details will interest you.

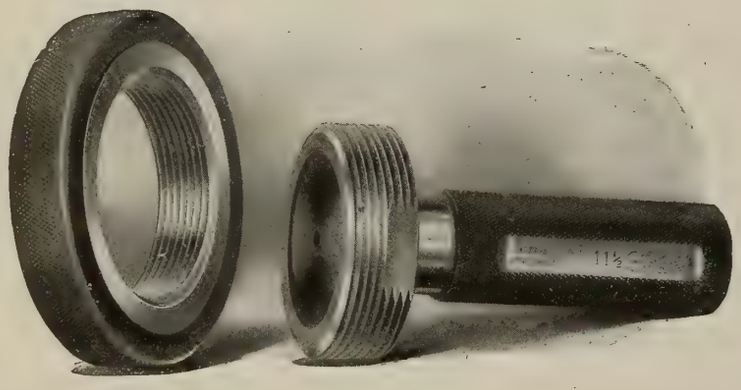
C. A. DUNHAM COMPANY, LIMITED, TORONTO, ONTARIO

Halifax Vancouver Winnipeg
Ottawa Montreal Calgary

SMALL TOOLS

MILLING CUTTERS

In High Speed or Carbon Steel



Plain Side Convex
Concave Angular
and
Special Forms

Special Inserted
Blade Cutters

Our tools are manufactured from the best materials procurable, by skilled workmen with most modern equipment.

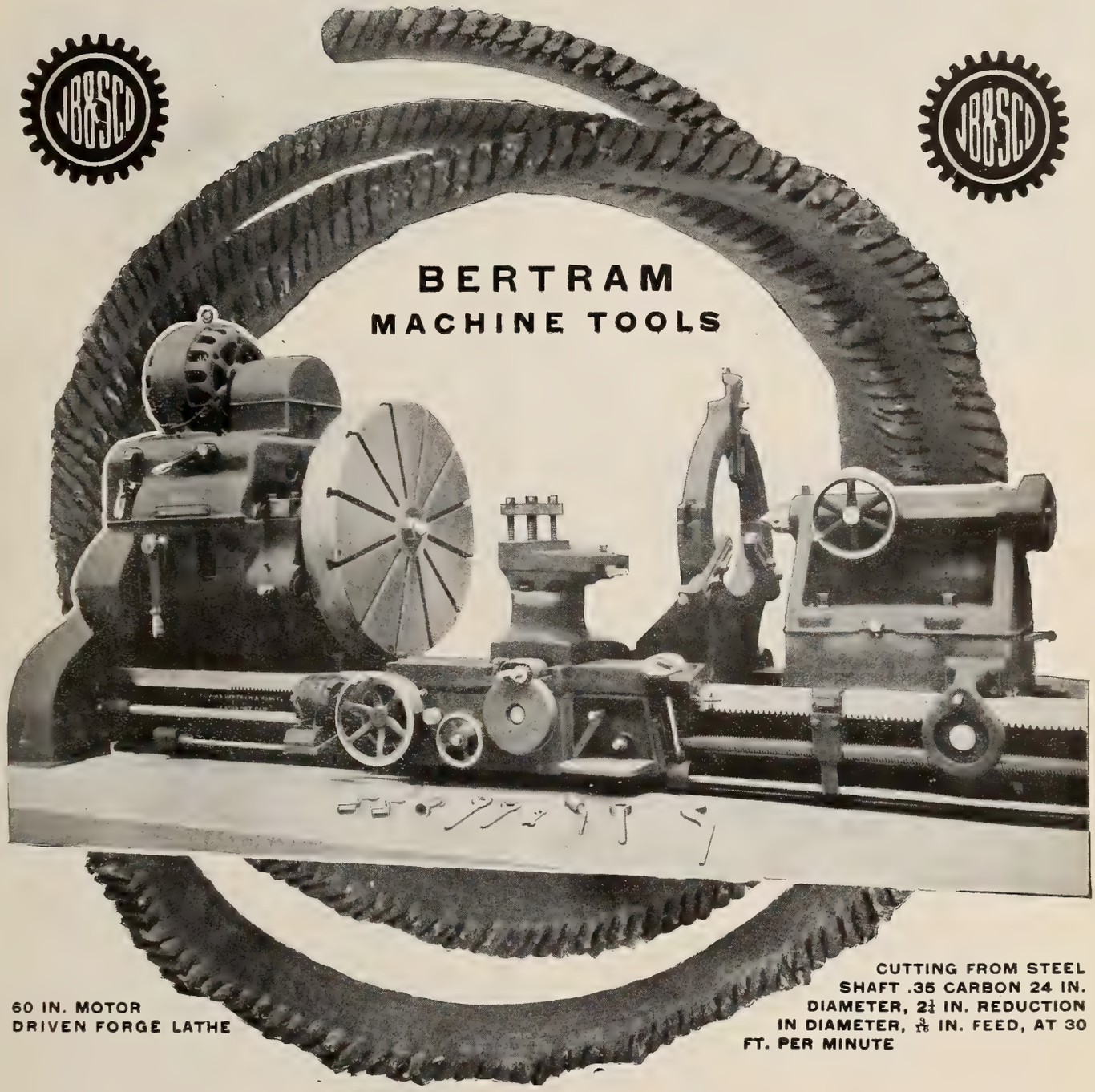
QUALITY GUARANTEED

Prompt service is assured at our nearest store, where P. & W. Small Tools are stocked for immediate delivery.

Write for Our No. 9 Catalogue

PRATT & WHITNEY CO.
of Canada, Limited
Dundas - Ontario

HALIFAX	MONTREAL	TORONTO	WINNIPEG	VANCOUVER
Davidson Bldg.	723 Drummond Bldg.	1002 C.P.R. Bldg.	1205 McArthur Bldg.	B.C. Equipment Co.



60 IN. MOTOR DRIVEN FORGE LATHE

CUTTING FROM STEEL SHAFT .35 CARBON 24 IN. DIAMETER, 2¼ IN. REDUCTION IN DIAMETER, ⅛ IN. FEED, AT 30 FT. PER MINUTE

THE JOHN BERTRAM & SONS CO., LIMITED

DUNDAS - ONTARIO - CANADA

MONTREAL
723 Drummond Bldg.

TORONTO
1002 C.P.R. Bldg.

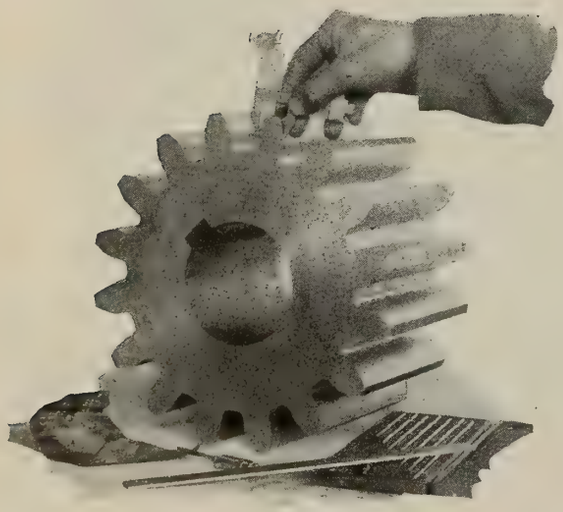
WINNIPEG
1205 McArthur Bldg.

HALIFAX
Davidson Bldg.

VANCOUVER
609 Bank of Ottawa Bldg.



Correct



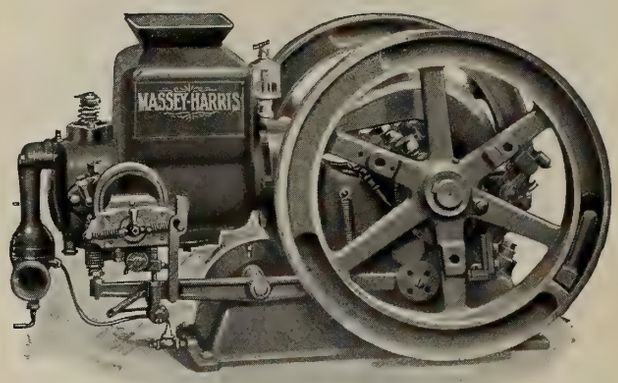
Gears

Write us

Hamilton Gear Co. Ltd.

Van Horne St., TORONTO

Massey-Harris



An Engine You Can Depend On

The Massey-Harris Engine can be depended on to give all the year 'round service in any kind of weather at minimum cost, because it's designed on scientific principles and every part built to stand up and wear long.

Think what these features mean:

Simple in operation.

A Simple and Efficient Carburetor gives a perfect mixture in any kind of weather.

Effective Governor—No charge or spark on Idle Stroke.

Valves Easily Removable.

Large Water Space surrounding Cylinder.

Safe Gasoline Storage in the substantial Cast-Iron Base.

Write for more detailed description of the Massey-Harris Gasoline Engine.

Made in Sizes to deliver from 2 to 15 H.P.

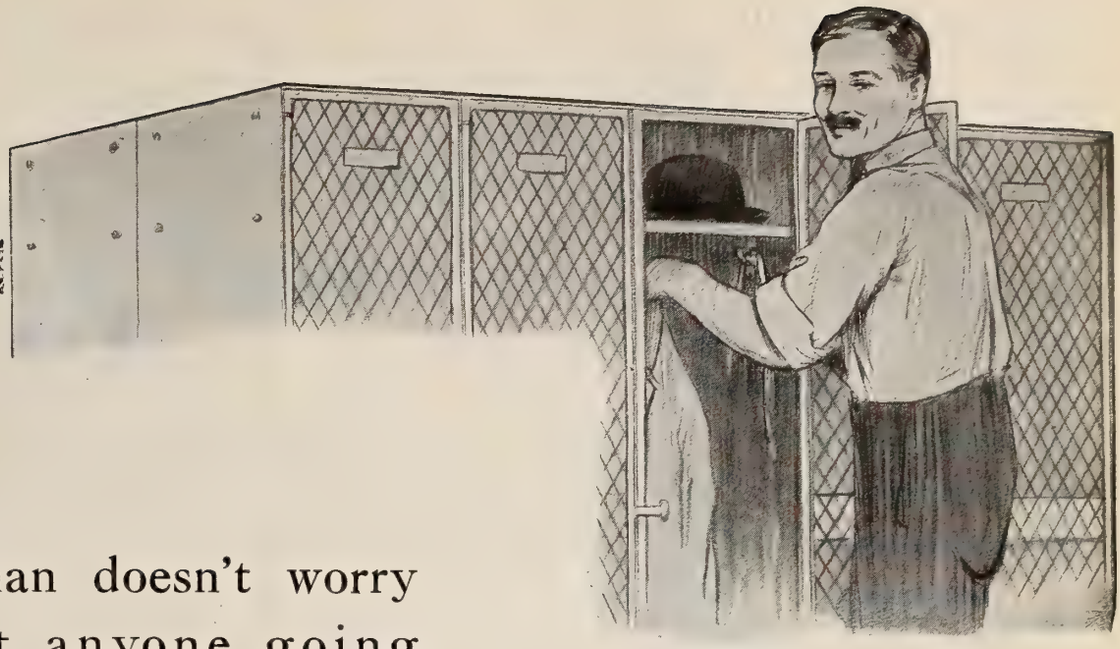
MASSEY-HARRIS CO., Limited

Head Office—Toronto, Canada

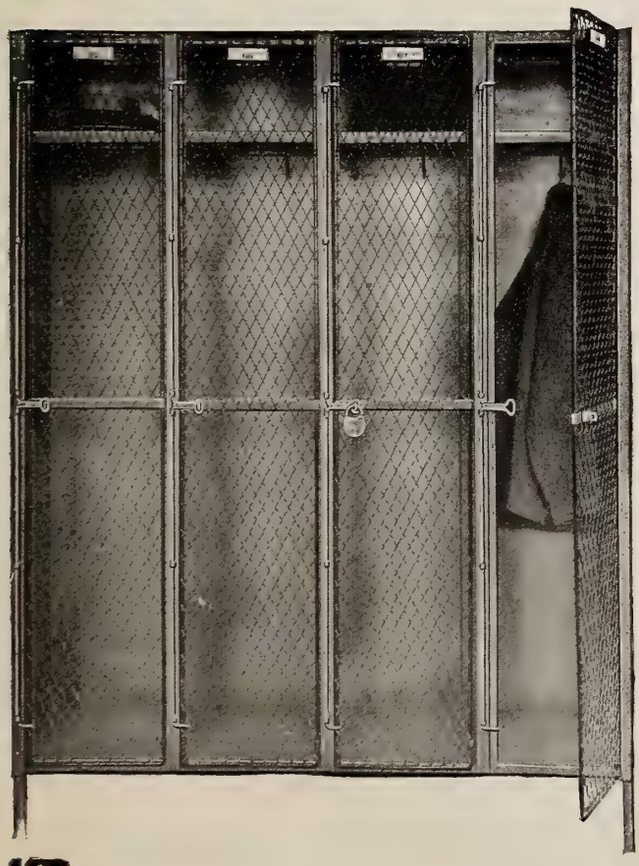
Canadian Branches at

Montreal Moncton Winnipeg Regina Saskatoon Swift Current Yorkton Calgary Edmonton

AGENCIES EVERYWHERE



THIS man doesn't worry about anyone going through his clothes while he is at work. He knows that all his personal effects are safe.



Our No. 2124 Locker has an open mesh door which allows the air to circulate and ventilates the clothing.

You can see the contents of the locker which is often a desirable feature, especially in candy factories.

This is the locker for the up-to-date Canadian plant. You will like it.

THE GEO. B. MEADOWS
TORONTO WIRE, IRON & BRASS WORKS CO
LIMITED
TORONTO ---------- CANADA



Salt Plant Windsor, Ont.

The Highest Standard

When buying salt always obtain the best—salt which combines quality with purity.

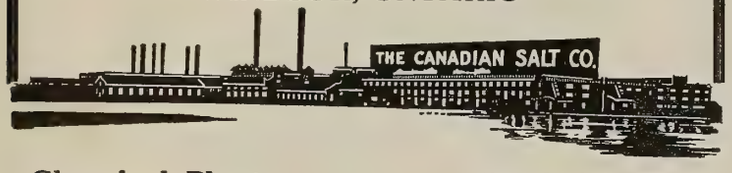
WINDSOR SALT
FOR GENERAL USE

REGAL SALT
FOR TABLE USE

Windsor and Regal Salt are produced in the finest salt manufacturing plant under the British Flag. Skill in manufacture has been combined with scientific knowledge to produce salt which is unrivaled.

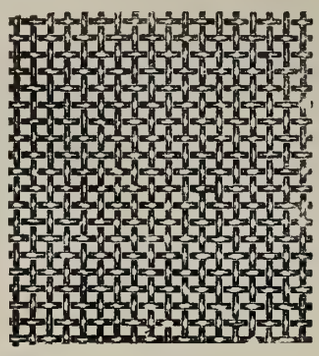
Made in Canada by

THE CANADIAN SALT CO. LIMITED
WINDSOR, ONTARIO



Chemical Plant Sandwich, Ont.

Canada Wire & Iron Goods Co.
HAMILTON - - CANADA



Manufacturers of
Double Crimped Wire Cloth and Wire Screening
for all purposes.
Overhead Wire Guards for Freight and Passenger Elevators

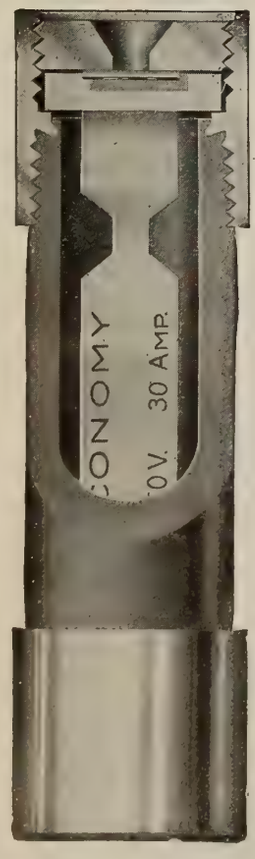
There is no kind of Wire Fabric required in the production of any machine or manufactured article that we cannot furnish.

We also manufacture:—

Bank and Office Grilles and Ornamental Iron Work in all finishes.

Wire Guards for Factory Windows, Moulders' Riddles, Laboratory Testing Sieves, Steel Factory Stools and Metal Lockers.

Send for Catalogue — Enquiries Solicited



ECONOMY renewable FUSES

are the ***right*** fuses to protect ***your*** electrical circuits

—because they afford the right sort of protection; their reputation lends assurance that you can safely depend on them for accuracy of rating and all-round efficiency in operation.

—because they cut annual fuse maintenance costs 80% as compared with the use of one-time fuses, owing to the fact that an inexpensive "Drop Out" Renewal Link restores a blown Economy Fuse to its original efficiency.

—because it's the work of a moment to replace the link and renew the fuse.

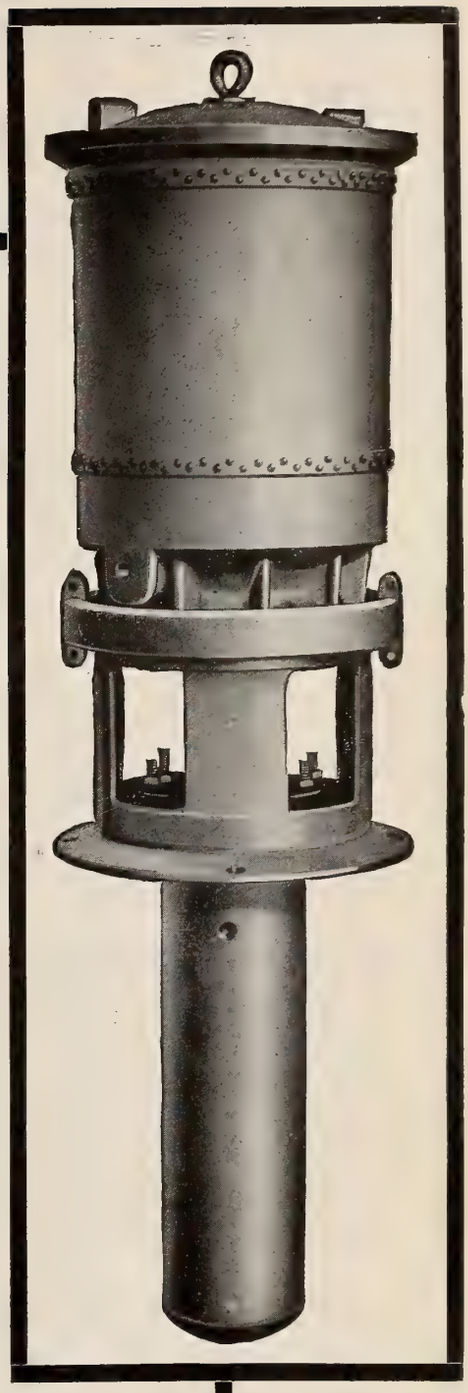
—because a good sized stock of "Drop Out" Renewal Links always on hand represents but a small outlay.

Write for Catalog 40

ECONOMY FUSE & MFG. CO.
OF CANADA, Limited

UNITY BLDG., MONTREAL **CHICAGO, U.S.A.**

Manufacturers in Canada of S. & C. High Potential Fuses to 150,000 volts



AKRON-WILLIAMS HYDRAULIC PRESS AND VULCANIZER FOR Curing Automobile Tires BUILT IN CANADA

The Press as Illustrated Embodies :

COOLING TANK AND MOULD LIFT COMBINED, QUICK-ACTING BOLTLESS HEAD, AUTOMATIC PACKING, STEEL CASTING AND PLATE CONSTRUCTION EXCEPT THE CHILLED IRON RAM. A TRIED AND PROVEN DEVICE USED BY MANY TIRE MANUFACTURERS

SPACE ECONOMY
LABOR SAVED
EFFICIENCY

Also—

Hydraulic Pressing Equipments
For All Purposes

Pumps, Accumulators, Presses Valves, Piping and Fittings

Ask for Catalog

The Hydraulic Machinery Co.
LIMITED

MONTREAL **CANADA**

Where Jenkins Bros.' Valves are Made

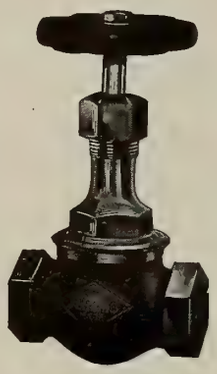


Fig. 106



Factory and Head Office of
JENKINS BROS. LIMITED
Montreal, Canada



Fig. 141

Where plants are scientifically operated, valve value is measured by service rendered, and by yearly ***lack*** of up-keep cost.

If valves break down before other items of equipment, an injustice is done to the entire plant; because valves should last as long as good plant equipment. Good valves do.

Consider—40 per cent. of the Nation's Coal Pile is lost each year by power plants, from their coal investment through poor steam transmission, and from unnecessary labor costs.

JENKINS BROS.' VALVES will keep your plant running and save you money.

A Protection to the User

A steam user who installs Jenkins Bros.' Valves, can do so with the knowledge that he is protected by the maker against defects and imperfections. Our dealers have instructions to replace, without question, any imperfect or defective Jenkins Bros.' Valve returned to them.

Catalogue No. 8 sent free on request.

Head Office and Works
103 St. Remi St.
Montreal - Canada

JENKINS BROS.
Limited
Agencies in All the Principal Countries of the World

European Branch:
6 Great Queen St.
Kingsway
London, W.C. 2, Eng.

Men = Machinery = Money

While we discount the half-baked theories of those who dream of an industrial millennium, we do see the direct connection between men, machinery and money.

Since the tendency is towards shorter hours and increased wages, thoughtful men realize that it is the machinery of production that must and can be made to produce more, if costs are to be maintained on a competitive selling basis.

We offer no royal solution to this problem outside of our own sphere, but we are willing to go a long way with any firm that wishes to increase the efficiency of its power transmission units.

We will put our time against that of any factory superintendent or principal who is disposed to call on us for expert advice.

We have been doing this in a quiet way for thirty years, but have never "blown" about it. But, as modesty seems to be no longer a great virtue, we may as well blazen out the truth and see what happens.

DODGE

MANUFACTURING CO., LIMITED

TORONTO = = = ONTARIO

770 St. Paul Street West, Haymarket Square = Montreal, Que.

CANADA'S LARGEST BUILDERS OF TRANSMISSION MACHINERY



ALGOMA

STRUCTURAL STEEL – MERCHANT BARS

Blooms, Billets and Slabs
Concrete Reinforcing Bars
Shafting – Pulleys – Hangers
Iron, Brass, Bronze and Steel Castings

Sulphate of Ammonia Nitre Cake
Sulphuric Acid

STEEL RAILS – Open Hearth Quality

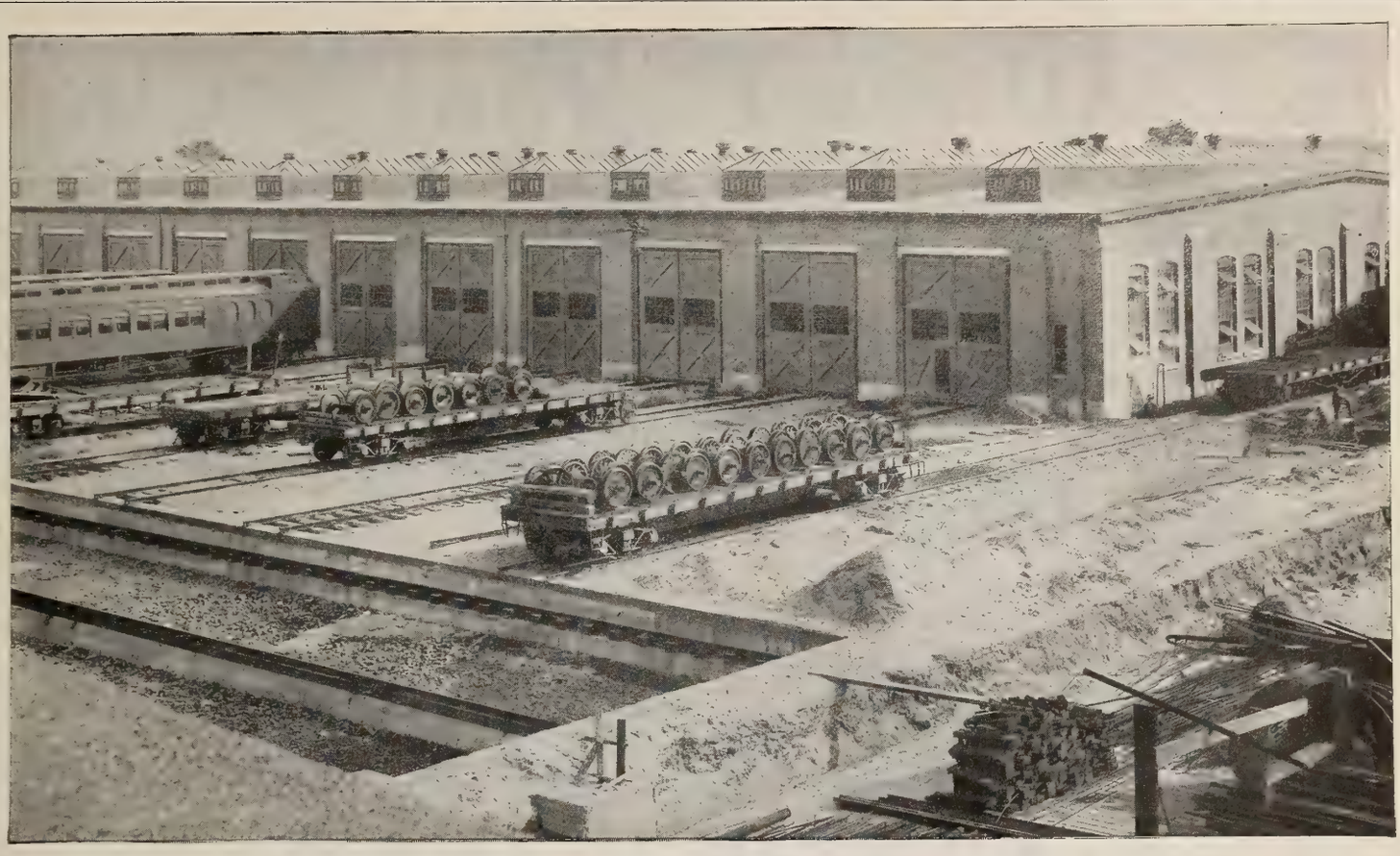
Splice Bars Steel Tie Plates
Light Rails – 12 lbs. to 45 lbs.

PIG IRON

Basic Foundry Bessemer Spiegel

ALGOMA STEEL CORPORATION
LIMITED

SAULT STE. MARIE - - - - ONTARIO



Coach Shop of Canadian Northern Railway at Leaside
over 10,000 feet of our skylights on this job

ORMSBY SKYLIGHTS

This job was a quality job. They wanted lights that would not leak. In their coach house where cars were being finished leaks would mean endless expense.

The ORMSBY SKYLIGHT was chosen—why?—because it has proven itself in Railway Road work in the East, in Winnipeg, in large factories, warehouses, etc., all over Canada.

We supply Skylights in any size or quantity. If you require one or ten lights write us. Our Skylight is so made that it will not, cannot leak, the glass does not crack from contraction or expansion—and the lights do last. Our price is right for a real skylight that is built of the right material, is made right mechanically and that gives real service.

Write us whether your requirements are large or small—we ship anywhere

THE A. B. ORMSBY COMPANY, LIMITED

Associated with The Metal Shingle & Siding Company
Factories at Preston, Toronto, Montreal, Winnipeg, Saskatoon, Calgary

AGENTS:

MARITIME PROVINCES:
F. A. GILLIS & CO., Halifax, N.S.

BRITISH COLUMBIA:
A. T. CHAMBERS, Vancouver

CANADIAN FURNACE CO.

LIMITED

PORT COLBORNE, ONT.

Manufacturers of Pig Iron

BRAND "VICTORIA"

"VICTORIA" FOUNDRY IRON

Strong—Soft—Neutral

"VICTORIA" MALLEABLE IRON

Furnished to all Standard Analyses

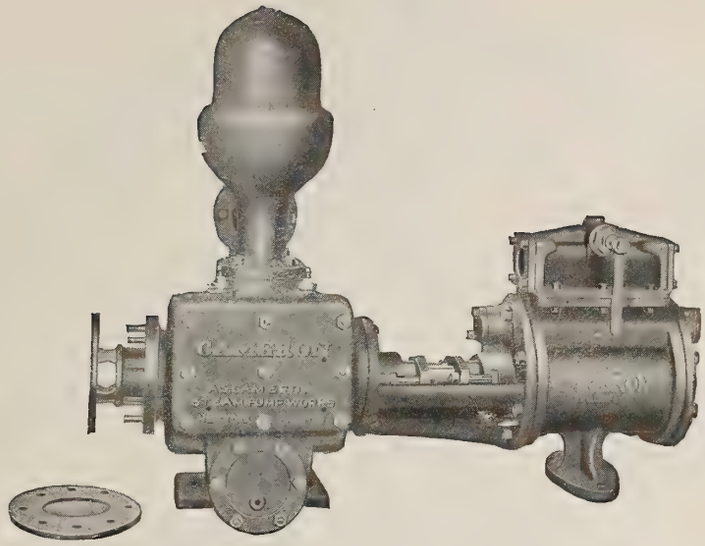
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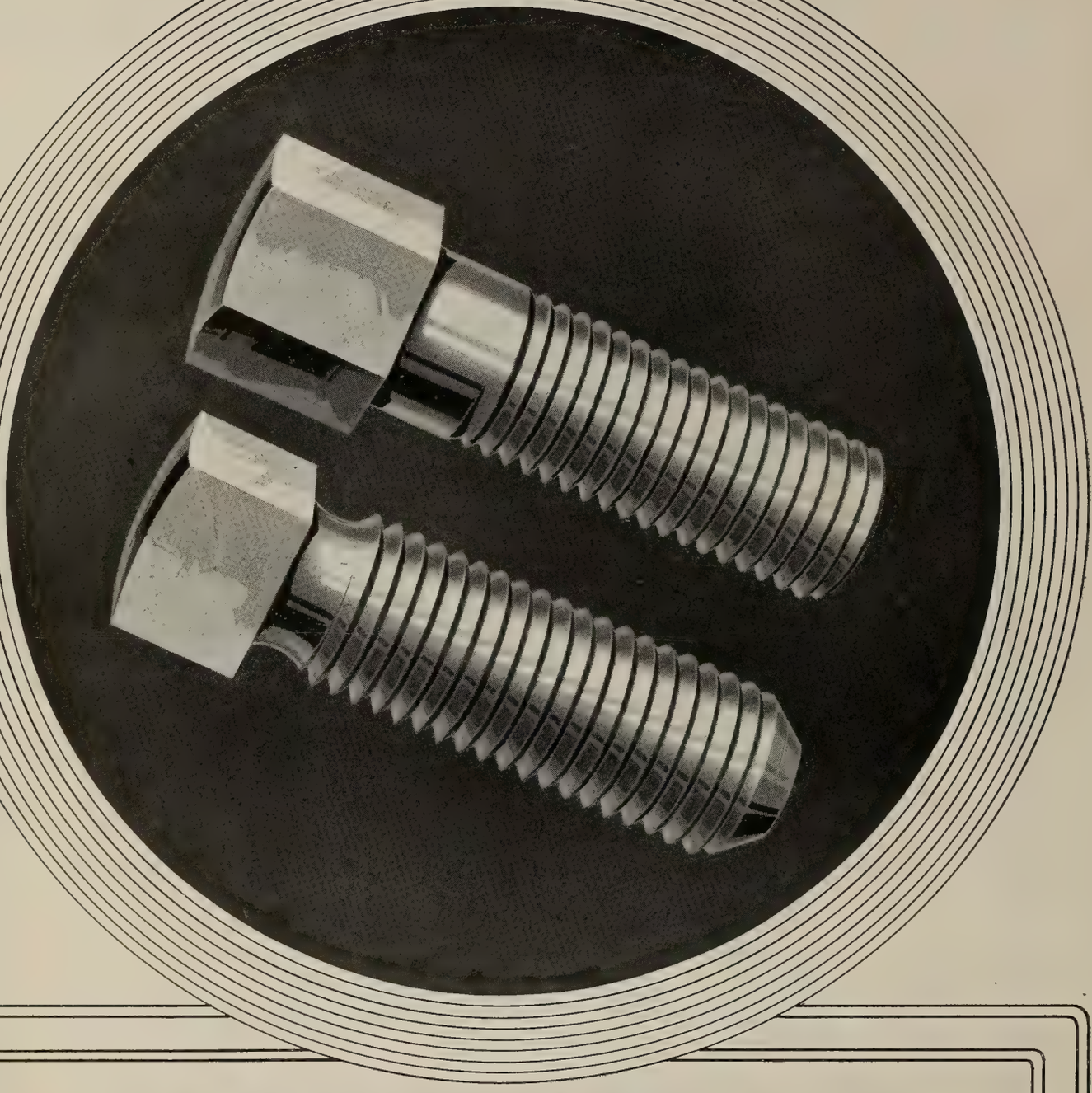
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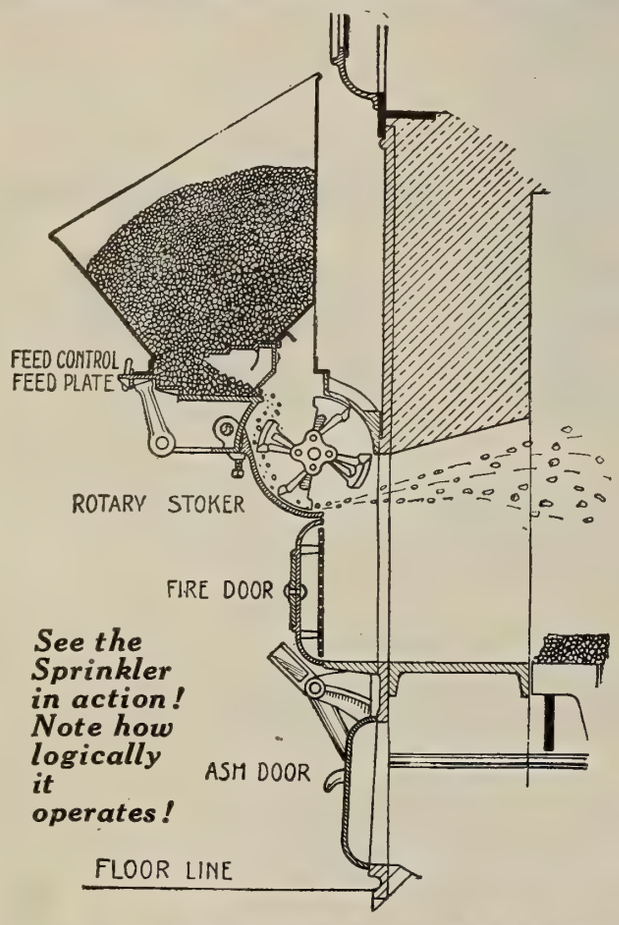
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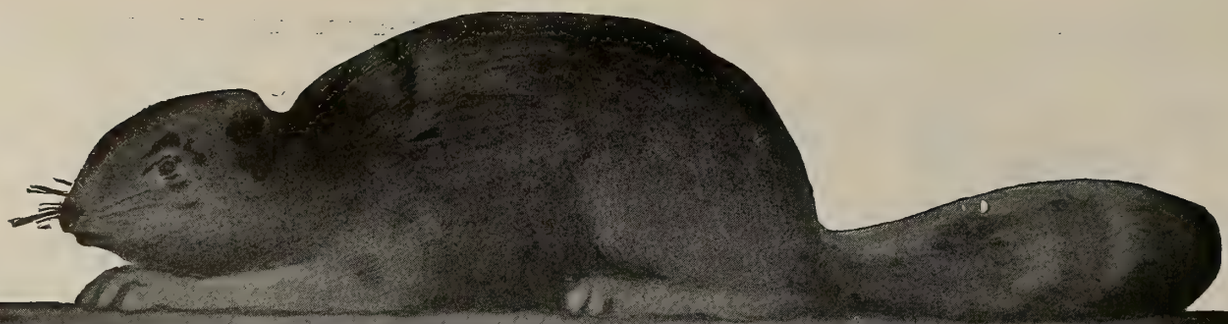
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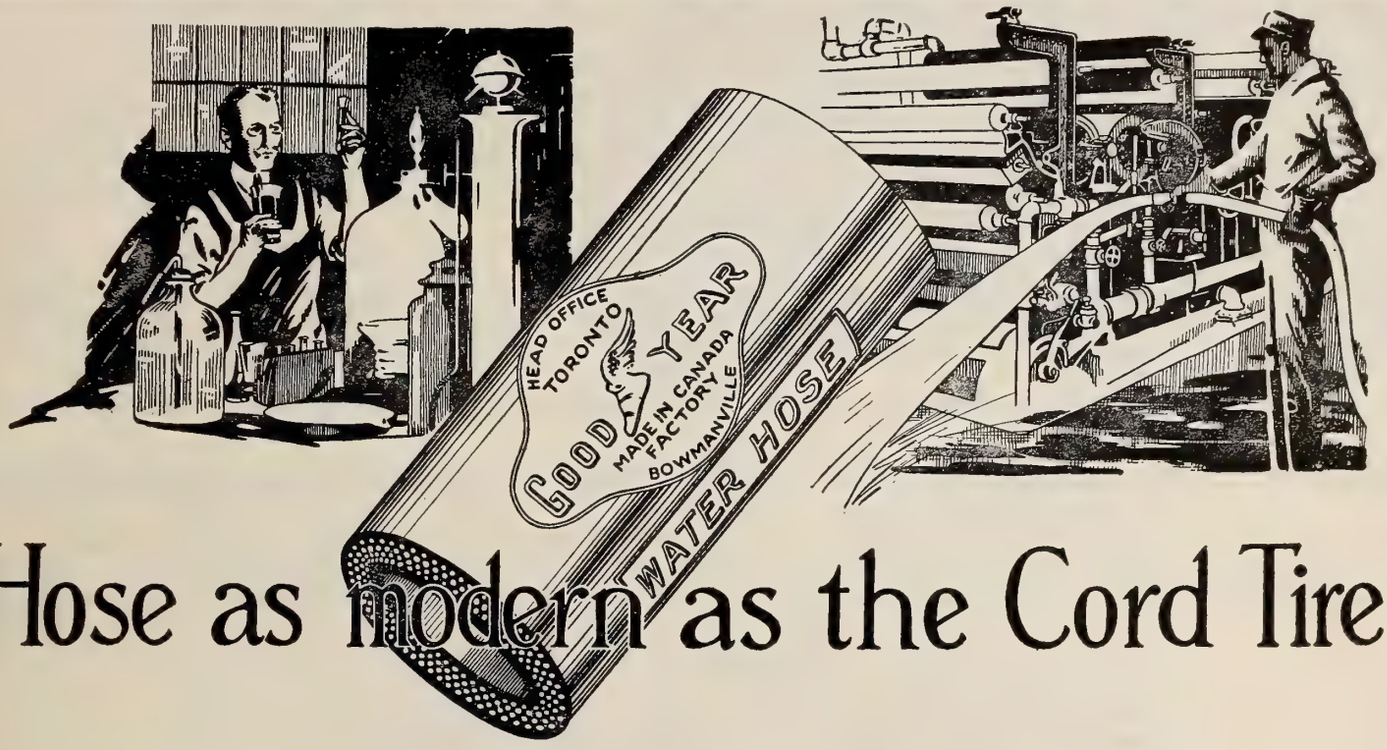
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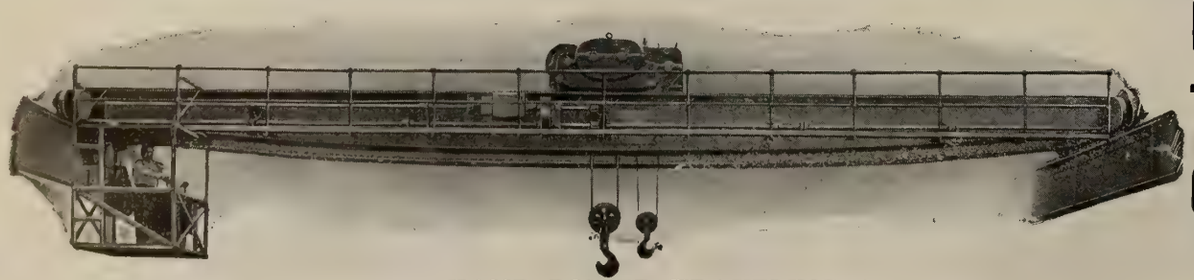
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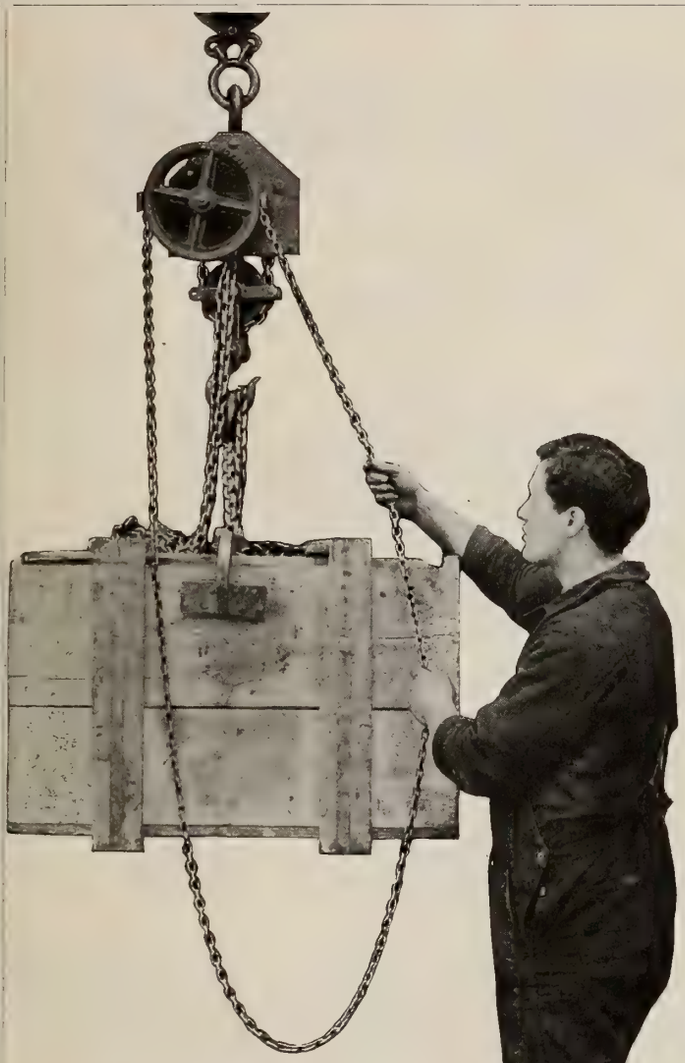
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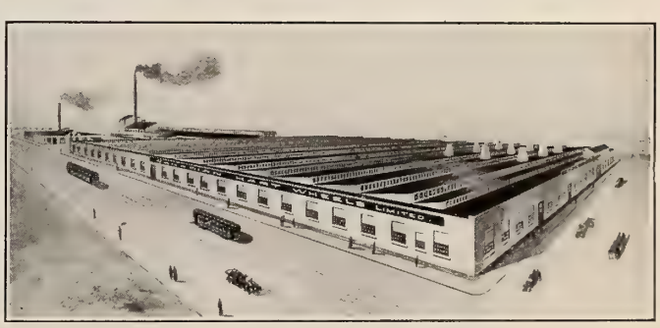
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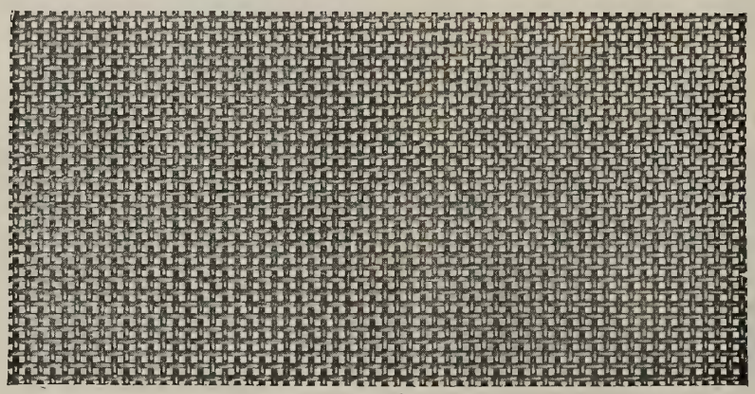
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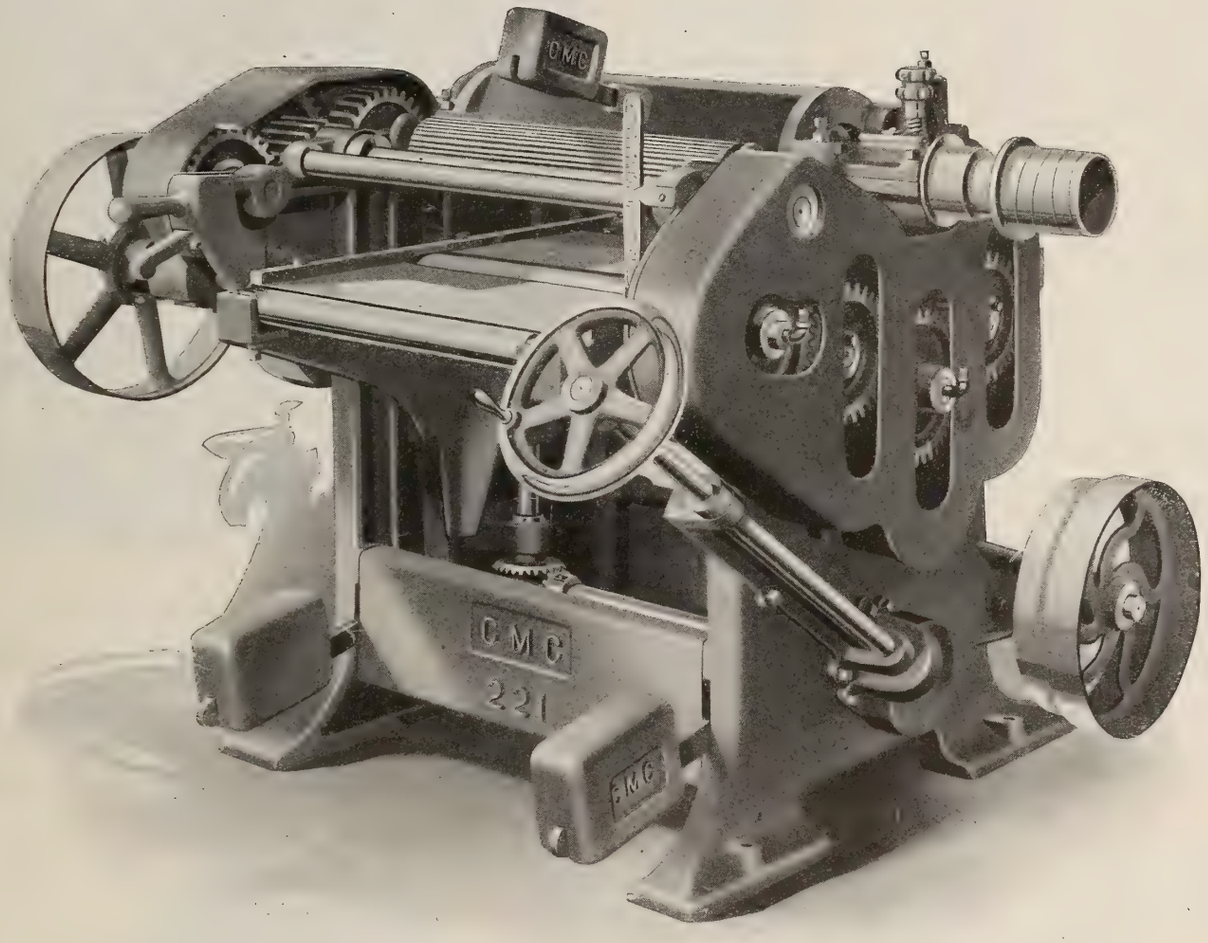
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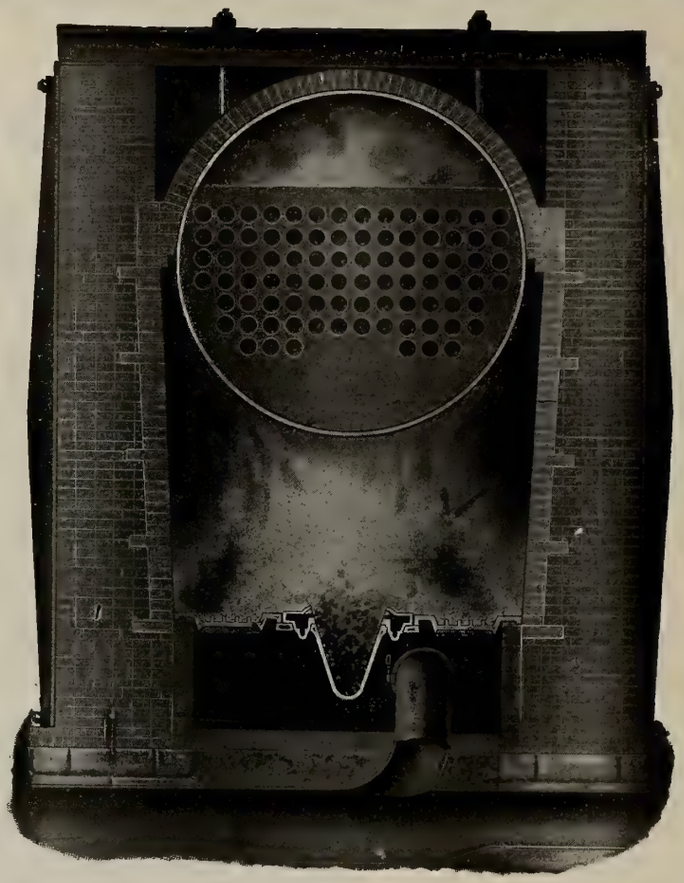
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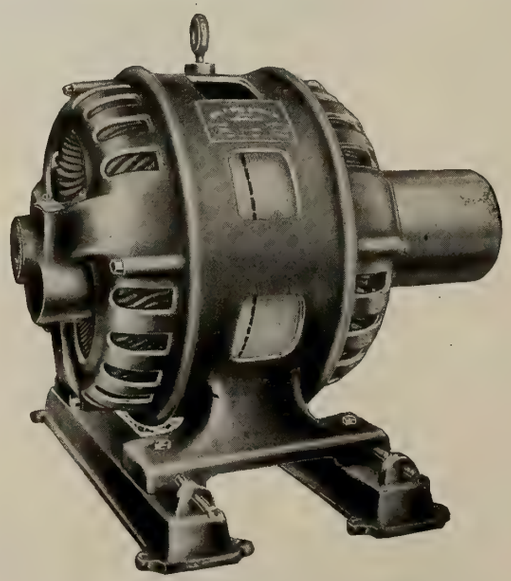
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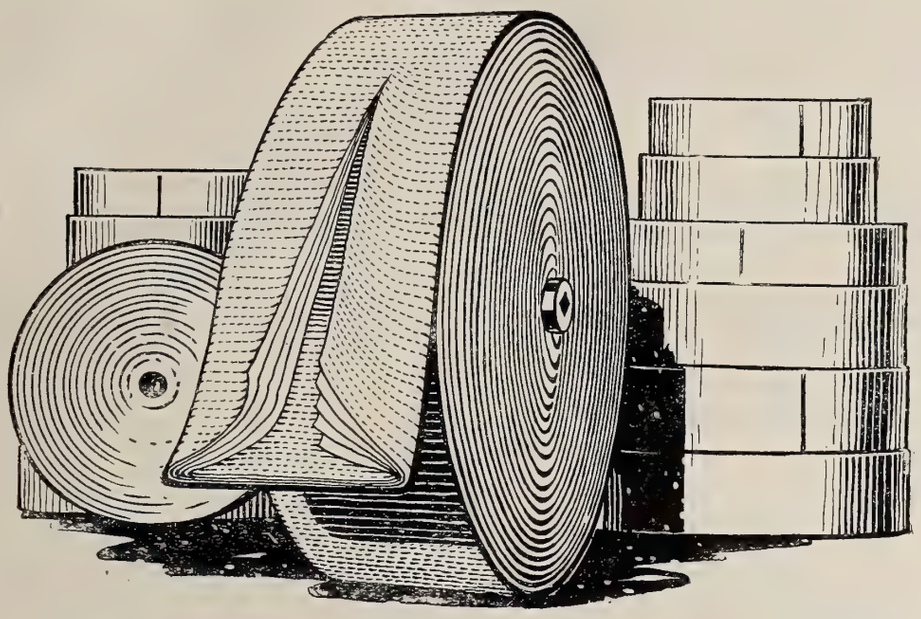


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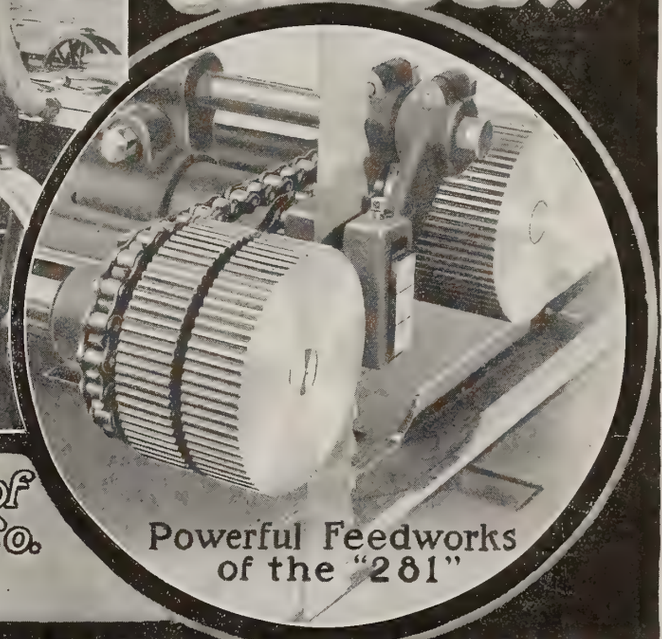
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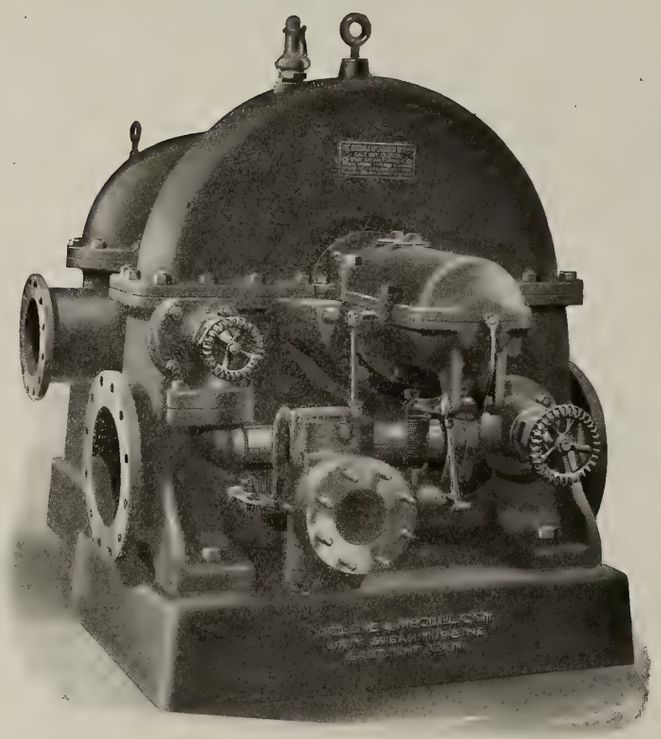
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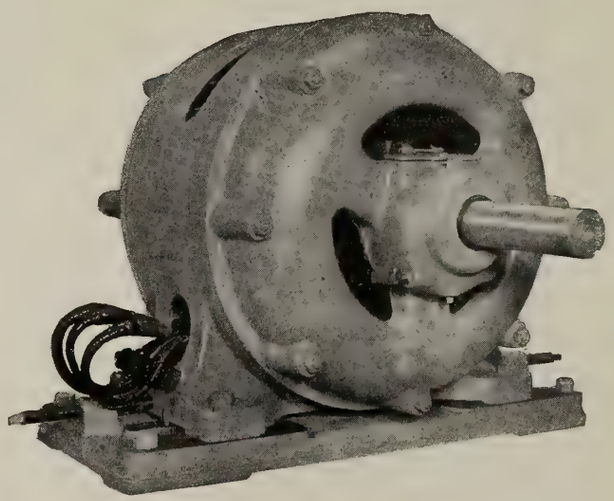
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Issued monthly as the official publication of the Canadian Manufacturers Association (Incorporated), and devoted to the advancement of the industrial and commercial prosperity of Canada.

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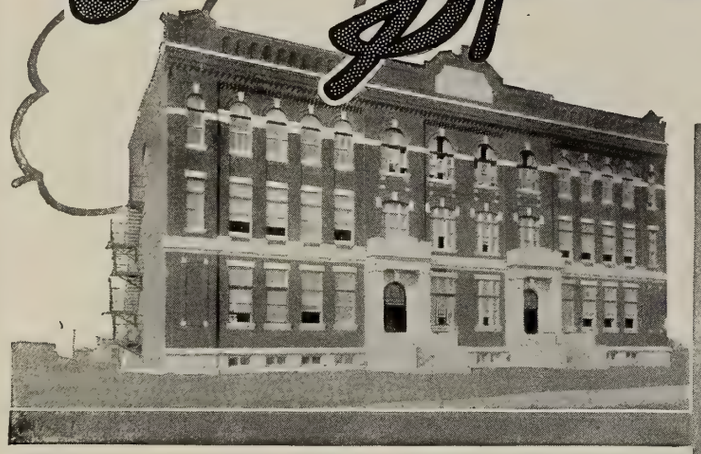
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When the two school buildings shown above were completed, we handed their owners, the Catholic School Board of Montreal, Surety Bonds which *guarantee* the roofs against trouble or maintenance expense for a period of *20 years.*

The probabilities are that these roofs will last for nearer 30 *years* without attention.

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Now we offer to go a step further and actually *guarantee* a Barrett Specification Roof *for a period of at least 20 years.*

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Capital Stock $2,000,000.00 No. 3021

UNITED STATES FIDELITY & GUARANTY COMPANY

JOHN W. McLANE, President BALTIMORE, MD.

Barrett Specification Roof

20 Year Guaranty Bond

Know all men by these presents, That we, The Barrett Company, a corporation, with offices in New York City, as Principal and the United States Fidelity & Guaranty Company, of Baltimore, Md., as surety, are held firmly bound in the sum(s) named below, successors and assigns, in the penal sum of not exceeding ..... lawful money of the United States of America, and for the payment of which we, said each of us, hereby bind ourselves, our successors and assigns, jointly and severally by these presents.

The condition of this obligation is such that:

Whereas, the said Principal has manufactured and sold the necessary Barrett Specification Pitch and Barrett Specification Felt to construct a Barrett Specification Roof on the building described as follows:

Owner .....

Building .....

Location .....

Approximate area of Barrett Specification Roof guaranteed ..... square

Date of completion of Roofing .....

Applied by .....

and

Whereas, said pitch and felt have been applied on said roof in accordance with The Barrett Specification of May 1, 1916; and

Whereas, the said The Barrett Company, Principal as aforesaid, guarantees that for a period of twenty years from the date of the bond, it will at its own expense, make any repairs that may become necessary to maintain said Barrett Specification Roof, exclusive of flashings, metal work and slate surfaces, in watertight condition, except from any cause other than ordinary wear and tear of the elements excepted; and

Whereas, said guaranty is made with further conditions as follows:

(1) The owner of said roof shall notify The Barrett Company in writing if such repairs are required, and in case of failure by The Barrett Company to make said repairs within a reasonable time, then the owner shall make such repairs and notify The Barrett Company of the amount expended therefor, whereupon it shall become liable to pay the amount so expended.

(2) Liability under said guaranty or to the bond shall be restricted to cover any damages to building or contents thereof.

Now, therefore, if the said The Barrett Company, its successors and assigns, shall in all things well and truly perform and observe all and singular the covenants, agreements, stipulations and conditions above shown to be performed and observed by it, then the obligation shall be void, otherwise to be in full force and effect.

In Witness Whereof, the parties hereto have caused this instrument to be executed by their duly authorized officers this ..... day of 19

ATTEST: The Barrett Company

By .....

Secretary Vice-President

ATTEST: United States Fidelity & Guaranty Company

By .....

This is the bond that guarantees your roof for 20 years.

To obtain the Bond you have only to insert in your building specifications the following:

"The roof shall be laid according to The Barrett Specification dated May 1, 1916, and the roofing contractor shall secure for me (or us) the 20 - Year Guaranty Bond therein mentioned."

The guarantee costs you nothing. We merely require an opportunity to send our Inspectors to watch the job during construction.

You get a roof that will cost less per year of service than any other type of permanent roof, and that takes the base rate of insurance. We get the satisfaction of knowing that our materials are creditably used.

We should be very glad to send you further details and copy of the Barrett 20-Year Specification, with diagrams, ready for insertion in your building plans.

The Barrett Company LIMITED

MONTREAL TORONTO WINNIPEG VANCOUVER ST. JOHN, N.B. HALIFAX, N.S. SYDNEY, N.S.

Industrial Canada

ISSUED BY

The Canadian Manufacturers Association
INCORPORATED

Vol. XX. TORONTO, NOVEMBER, 1919 No. 7

Editorial Comment

A Tariff Board

THE experience of the United States in creating a Tariff Commission should encourage Canada to follow the example set. Since the creation of the Tariff Commission in the United States, questions relating to the tariff seem to have almost disappeared from the controversies of politics. Fiscal questions are studied by this body in a disinterested and detached manner. All the facts bearing on each question are assembled and the decision is made with reference to the best interests of all classes in the country. Such a procedure must tend to produce economic stability, which is of the greatest possible advantage to trade and commerce. The Canadian Government should appoint a permanent tariff board to act in an advisory capacity to the Government. This board should make a scientific study of the Canadian customs tariff and also the tariffs of other countries with which Canada trades. It should familiarize itself with cost of production and other factors affecting manufacturing. Much depends upon the personnel of such a board, but if the right men are selected, they, with all the facts before them, should be able to frame such a tariff as will safeguard the best interests of the country.

The Victory Loan

THERE is little use in advancing arguments why Canada should do something which must be done. Canadians have no option about supporting the Victory Loan of 1919. Expenditures have already been incurred and must be met. It is better to borrow from our own people than from abroad. One of the questions which is asked is, "What was done with the last Victory Loan?" The Victory Loan Committee have issued a circular explaining very concisely how the last loan was spent. The 1918 loan amounted to $610,000.000. Of this amount $312,900,000, or 51.3 per cent. was paid for war and demobilization expenses in Canada; $59,000,000, or 9.7 per cent. was paid for war service gratuities. These two items account for three-fifths of the total loan. The sum of $207,750,000, or 34 per cent. of the total, was advanced to Great Britain and her Allies for the purchase of Canadian wheat and other foodstuffs; $9,000,000 was advanced to Great Britain for the purchase in Canada of the salmon pack; $8,400,000 was advanced to Great Britain for imperial shipbuilding and sundry accounts, and for interest on loans made Great Britain for munitions bought in Canada; $3,950,000 was advanced to the Allies for the purchase of Canadian raw materials and manufactures; $9,000,000 was voted to the Halifax Relief Fund. Every dollar of the 1918 Victory Loan was spent in Canada and every dollar of the 1919 Victory Loan will be spent in Canada.

Transportation for Prince Edward Island

WHEN Prince Edward Island entered Confederation the Province was promised continuous and adequate communication with the mainland. That promise has never been fulfilled to the satisfaction of the Islanders. Up to a few years ago, the transportation system of Prince Edward Island and connection with the mainland was inadequate and unsatisfactory and the Islanders had sufficient cause for complaint. While millions of dollars were being wasted on railway enterprises in other parts of Canada which have not yet begun to pay a return on the cost of construction, one of the oldest Provinces, which is a most fertile country and completely settled, was unjustly treated in the matter of transportation.

During the past few years the Dominion Government has gone a considerable distance in remedying this unfortunate state of affairs. A splendid car ferry and ice breaker was constructed to operate across the Straits of Northumberland between Cape Tormentine and Borden Extensive breakwaters and landing docks were built, and the old narrow gauge road on the Island was standardized from Borden to Charlottetown. While this action has greatly improved the situation it is still far from being entirely satisfactory. In the event of the car ferry being laid up for repairs, Prince Edward Island will be temporarily isolated from the mainland. The people of Prince Edward Island claim that a second car ferry should be put into operation to insure the continuous and adequate service to which they are entitled. It seems an extraordinary thing that a hundred thousand people of British

descent, inhabitating one of the oldest Provinces of Canada, should be denied a proper transportation service, in view of the fact that millions have been spent on providing transportation for aliens who have been distributed through some of the more inaccessible parts of Canada. The people of Prince Edward Island have long had a grievance on this transportation question against the rest of the people of Canada, and this should be remedied to their complete satisfaction without further delay.

Super Commissions

THERE is now pending before the United States Senate a bill which is designed to establish a Federal Industrial Relations Commission. Employers in the United States believe that this Bill would give the Commission wide powers over the conduct of industry, including such questions as the length of hours, the amount of wages, output and collective bargaining. The avowed object of the Bill is to try to prevent industrial disputes, strikes and lock-outs. The experience of employers in the United States in relation to various Commissions dealing with such matters is probably very similar to that of employers in Canada. During the war, the various arbitration and conciliation boards kept labor satisfied, chiefly by giving them nearly all they asked for. It is easy enough to arbitrate industrial disputes if this method is followed. It is the simplest method for a commission which desires to achieve temporary popularity. If the experience of the past is any guide, employers will anticipate that when they and employees appear before a commission possessing anything like final powers, disputes will be settled by their being forced to yield. The majority of "settlements" will simply mean that the employers give up something. Employers have learned by bitter experience how unreliable is the third, or presumably disinterested party, in a commission. Instead of being a non-partisan, fair-minded and able judge, he is too often a political appointee who promptly sides with the employees and becomes their advocate rather than their judge. When the employers are forced to deliver themselves into the hands of a super-commission which can decide arbitrarily how business should be conducted, there appears to be little difference between that position and the direct control of industry by the Government.

Germany and the Rate of Exchange

REPORTS coming out of Germany indicate that Germany has thrown over the doctrines of Karl Marx. Most of the false economic thinking which is prevalent at the present time can be traced to the pernicious teachings of this German socialist. The Marxian school of political economy emphasize class distinction, preaches the doctrine of restricted output and the control of industry by workers without regard to their qualifications. These doctrines spread over the world and secured a following in most civilized countries. After the armistice in Germany they were tried out to some extent and failed utterly. The Germans, who are above all things a practical people, now realize that the only way they can survive the catastrophe which has overtaken them is to work harder than they have ever worked before. Consequently, they have thrown over the eight-hour day, restriction of output, unreasonably high wages and other false economic doctrines. They have determined to produce goods in vast quantities as cheaply as possible and to throw them on the markets of other countries. They believe that this is the only way they can pay their huge debt and keep their nation as a seperate entity.

The present condition of exchange is helping them, especially in regard to those articles for which they have the raw material within their own boundaries. They sell to Great Britain and are paid in sterling which has not depreciated to any extent in comparison with the mark in international exchange. They can sell to the United States where the dollar is at a premium. They have an even greater advantage in respect to goods which are based on raw material purchased in Russia where the ruble has depreciated comparatively more than the mark. It is obvious that when Germany buys raw material in Russia, manufactures it in Germany, and sells it in the United States they have a tremendous advantage and benefit to the fullest possible extent from the present abnormal exchange situation. Germans are already boasting that while they have lost the war they have won the peace.

Industrial Conference—United States

AT the time of writing the labor delegates have withdrawn from the Industrial Conference which was summoned by President Wilson at Washington on October 6th. This Conference consisted of representatives from the following three groups: capital, labor and the public. The labor delegates withdrew because the Conference would not adopt their resolution on collective bargaining which involved the recognition of trade unions and collective bargaining and, according to the delegates of the employers, meant the establishment of the closed shop.

At the National Industrial Conference in Ottawa, the employers and employees differed over the same points, but they agreed to disagree, and placed their respective resolutions covering the points at issue on the records of the Conference. The employers of the United States have taken the same attitude as that taken by the employers at the National Industrial Conference at Ottawa. If industry is to remain free, no other attitude could have been taken by United States employers in the interests of the country as a whole.

Organization of Divisions

THE sixteenth of October is an important date in the history of the Canadian Manufacturers Association. On that date simultaneous meetings were held in Montreal and Toronto for a common purpose. In Montreal, the Quebec Division of the Association was organized. In Toronto, the Ontario Division of the Association was organized. These Divisions under the constitution will deal with matters having an entirely provincial applica-

tion. The formation of the above mentioned Divisions completes the new organization scheme of the Association which was authorized at the last Annual Meeting. The Pacific Division, including the Province of British Columbia, the Prairie Division including the Provinces of Saskatchewan, Alberta and Manitoba, and the Maritime Division, including the Provinces of New Brunswick, Nova Scotia and Prince Edward Island, have already been organized and are in operation. Additional Branches within the territories of the respective Divisions will be organized as quickly as circumstances will permit. Consequently, the Association now has highly centralized machinery for dealing with matters of national importance and in addition has local machinery for dealing with local matters.

The Maritime Provinces

IN the United States the bulk of manufacturing has never shifted far beyond the New England States and New York State. Great cities have sprung up in the centre and west to provide for the needs of a rapidly increasing population, but what might be termed the centre of industrial gravity has remained in the north-eastern section of the United States.

In Canada we find that the centre of industrial gravity is located between Toronto and Windsor, or south-western Ontario. In the United States manufacturing started in the east and spread gradually westward. In Canada, owing to the geographical position of the St. Lawrence River, manufacturing centred in south-western Quebec, developed there gradually, and then shifted to south-western Ontario. Many people believe that the centre of Canadian manufacturing may in time move still farther west, possibly to Winnipeg. Others believe that while manufacturing will greatly develop throughout the whole of western Canada as the population of that part of the country grows, there will be an even greater development in eastern Canada, including Ontario, Quebec, and even more markedly the Maritime Provinces.

These Provinces appear to have nearly all the essentials of a great manufacturing area. They have four magnificent seaports, St. John, Halifax, Sydney and Charlottetown. St. John is the terminus of the Canadian Pacific Railway; Halifax is the terminus of the Canadian Government Railways. The Maritime Provinces are the logical location for industries exporting to Europe, the Eastern States, the West Indies and part of South America. The Maritime Provinces are especially fortunate in their population, which is nearly all of British and French descent. The standard of education and living is high and the best educational facilities are available. There is no better material anywhere for apprentices than in the Maritime Provinces.

The Maritime Provinces possess nearly all the great basic materials for manufacturing. They have coal and iron in close proximity. They have great stores of timber and their farms produce cheap and abundant food for an industrial population. Up to the present they have lacked one thing, namely, cheap power, but committees are now investigating the possibility of remedying this defect with a fair hope of success. Possessing all these advantages, is it unreasonable to expect that some day the Maritime Provinces may stand in the relative industrial position to the rest of Canada that the New England and New York States stand in regard to the rest of the United States?

The Metric System

THE advocates of the metric system have been making determined efforts to secure the adoption of their system in English-speaking countries.

The British Committee on Commercial and Industrial Policy after the War carefully investigated the system and reported as follows:

> "We are not convinced that the metric system is upon the whole even theoretically superior to the British system, and we are satisfied that the practical objections to the proposed change are such as to decisively outweigh any advantages which are claimed for it."

The National Association of Manufacturers of the United States at their Annual Meeting on May 20th, 1919, in New York, endorsed the finding of the British Committee. The Canadian Manufacturers Association at its Annual Convention on June 12th, 1919, approved of the stand taken by the National Association of the United States in endorsing the British Committee's findings.

Consequently, it would appear that there is little chance of the old and tried British system of weights and measures being replaced by the metrical system.

Imperial Preferential Tariffs

CANADA was the first country to adopt the principle of granting a preferential tariff to other countries within the British Empire. At the present time, the British tariff preferences provided by the Dominion of Canada are more extensive than the preferences provided in the fiscal policy of any other British country. It is hoped that the Government will do all in its power to secure the adoption throughout the Empire of substantial customs preferences for British products corresponding to the preferences now provided in the customs tariff of Canada.

The Closed Shop

THE closed shop was first applied on a national scale in the British Isles. All attempts to apply it in a national way to industry have failed on the North American Continent.

The chief reason for this is that the conditions in Great Britain are entirely different from the conditions in North America. In Great Britain there has been for many years a surplus of population. Consequently, the great fear of the wage-earning classes is that there would not be enough work to go round. Further, they argued that the work available should be divided up. They felt that the most effective way to accomplish this purpose would be to close up the shops and exclude all who were

Membership Campaign Week

A great national campaign to secure additional members for the Canadian Manufacturers Association will be held during the week December 1st to December 6th. The slogan of the campaign is "ONE HUNDRED PER CENT. MEMBERSHIP IN EVERY CITY, TOWN AND VILLAGE." Remembering President Howard's appeal at the last Annual Meeting of the Association in Toronto, in June, for each present member to secure one new member this year, when you receive further details of the organization of your division will you please do all you can to make the membership campaign week a success?

not members of trade unions. They also practised the restriction of output.

On the North American Continent the reverse has been the case. Instead of having a surplus of population we have a shortage, and vast sums have been spent to attract immigrants who are necessary to do the constructive work on a new continent. Instead of a shortage of work, this Continent as a rule has not had enough men to do the work which is waiting to be done. Here the workman of yesterday is the employer and capitalist of to-day. He looks forward confidently to the time when he can get into business for himself and secure the rewards of his own initiative in industry. The attempt to apply the old world theory of a closed shop to this Continent cannot succeed because it is opposed to the spirit of freedom and the natural desire of a man to improve his condition in life.

The closed shop tries to limit the number of apprentices in order that those who are already in the trade can keep it to themselves. The closed shop system tends towards an equal wage to the highly skilled and efficient men and the inefficient and unskilled men. This operates severely against the better class of workman. Obviously if a poor workman is getting a dollar a day more than he earns, some better workman will be getting a dollar a day less than he earns. A good workman does not want to be tied to the wage paid to the poorer workman. Moreover, in the closed shop the individual production tends to be fixed by the efforts of the least efficient man in the shop. If a skillful and industrious man works hard in the hope of getting higher wages and promotion, he is quickly told to go more slowly, because the poorer man cannot keep up with him. Broadly speaking, the aim of the closed shop is to give each man in the trade the same amount of money for doing the same limited amount of work. In other words, the poorer men control the better men. In the end the closed shop tends to operate against the welfare of the wage earners themselves. As soon as a shop is closed and a monopoly thereby created, the natural tendency is towards shorter hours, still greater restriction of output and higher wages. The result is the cost of production is increased and the wage-earners, who are also consumers, have to pay more for what they buy. Restriction of output creates scarcity and scarcity increases prices. When goods are produced in great quantities they become cheap and there is no sound way to decrease the cost of living except to increase production so that there will be more goods to divide. Because the closed shop is inimical to individual initiative, to the encouragement of skill, to greater production of goods and to lowering the cost of living, it can never be applied on this Continent in a national way without injury to the whole population.

The Peace Treaty

PART of the gigantic scheme for disseminating socialistic propaganda now operating in civilized countries, is to misinterpret the text of the Labor Features of the Treaty of Peace. For example, the inference is drawn that these Labor Features make obligatory the adoption of an eight-hour day. Further, the eight-hour day is assumed to mean a forty-four hour week. They deduce further that changes are to be brought about by legislation.

There is no expression of opinion in the general principles of the Labor Features of the Treaty of Peace that economic principles should be set aside and that legislation should be substituted for them. The Peace Treaty only speaks of "methods and principles" and even these are to be applied with certain reservations, as the following extracts from the text of the Labor Features of the Treaty of Peace indicate:

"They (the high contracting parties) recognize that differences of climate, habits, and customs of economic opportunity and industrial tradition make strict uniformity in the conditions of labor difficult of immediate attainment. But, holding as they do, that labor should not be regarded merely as an article of commerce, they think that there are methods and principles for regulating labor conditions which all industrial communities should endeavour to apply, so far as their special circumstances will permit."

The high contracting parties have enumerated certain principles which they consider to be of special importance. In connection with the eight-hour day they set forth this principle:

"The adoption of an eight-hour day or a forty-eight-hour week as the standard to be aimed at where it has not already been attained."

Consequently, the Peace Treaty very clearly stipulates that in speaking of an eight-hour day a forty-eight-hour week is meant and not a forty-four-hour week or forty-hour week. They further indicate that they only mentioned the forty-eight-hour week as the "standard to be aimed at." There is no suggestion that even the forty-eight-hour week should be established anywhere by law. Another principle is stated as follows:

"The right of association for all lawful purposes by the employed as well as employers."

The right of association for all lawful purposes is one that is fully admitted by the employers. The Labor Features of the Treaty of Peace, however, do not say anything about "recognition of unions" or "collective bargaining." The general principles set down in these Labor Features of the Treaty of Peace merely indicate an ideal which may be reached through economic evolution in the future.

News and Views of the Association

There will be found each month in this department a record of the various activities of the Canadian Manufacturers Association during the preceding month. The information is supplied to INDUSTRIAL CANADA officially, and all members of the Association are urged to acquire the habit of reading and checking over the contents of the department carefully in order to keep themselves posted on the work of the Association

Executive Council Meeting

A well-attended meeting of the Executive Council was held in the Board Room of the Head Office on Thursday, October 30th, at 2.15 p.m. Mr. J. S. McKinnon, first vice-president, occupied the chair and the usual reports from committees were presented and considered. The Council again voiced its appreciation of the services rendered by Mr. C. H. Carlisle, chairman of the Industrial Relations Committee, and the other manufacturers and officers of the Association who did such good work in connection with the National Industrial Conference at Ottawa.

Annual Meeting, 1920

The Executive Committee of the Association has made a recommendation to the Executive Council that the next Annual Meeting should be held in Western Canada and that the place and date of the meeting should be determined by a committee consisting of the President and General Manager. Early action was suggested so that members could make necessary arrangements to attend.

New Members' Executive Committee

At the meeting of the Executive Council in St. John, on October 1st, Messrs. C. Howard Smith, Howard Smith Paper Mills, Limited, Montreal, and Angus McLean, Bathurst Lumber Co., Bathurst, N.B., were appointed members of the Executive Committee, in succession to Messrs. John R. Shaw, Canada Furniture Manufacturers, Woodstock, and H. H. Champ, Steel Co. of Canada, Limited, Hamilton, whose term of office had expired.

Prince Edward Island Service

The Transportation Committee at its last meeting gave consideration to the complaints regarding inadequate service to and from Prince Edward Island, which were made by the manufacturers and Board of Trade of Charlottetown during the recent visit there of Association officers. The Committee were of the opinion that the Island was entitled to better service and that the Association should try to help them. The General Manager was therefore requested to take up the question direct with the president of the Canadion National Railways.

Delegates to Conference

In connection with the first International Labor Conference, which was opened in Washington on October 29th, the Association was asked to nominate one person to represent all the employers of Canada and five other persons who would act as his advisers. The Executive Committee at its last meeting considered the selection of the delegate and his advisers and the matter was referred for action to the President and General Manager who selected Mr. S. R. Parsons, British American Oil Co., Toronto, as delegate with Mr. Sam Harris, Harris Lithographing Co., Toronto, and Mr. J. R. Shaw, Canada Furniture Manufacturers, Woodstock, as substitutes. For advisers, Mr. J. E. Walsh, General Manager; Mr. J. T. Stirrett, General Secretary; Mr. E. Blake Robertson, Ottawa Representative; Mr. J. G. Merrick, Secretary Employers Association of Toronto, and Mr. J. B. Hugg, K.C., Winnipeg were named.

Federation of British Industries

Through the good offices of the Canadian Mission in London, England, a reciprocal agreement has been made between the C.M.A., and the Federation of British Industries, a highly organized body which includes nearly all the manufacturing industries in Great Britain and has a membership of over 17,000. Under the arrangement both organizations will enjoy a free interchange of statistics, information and services.

Insurance Department Service

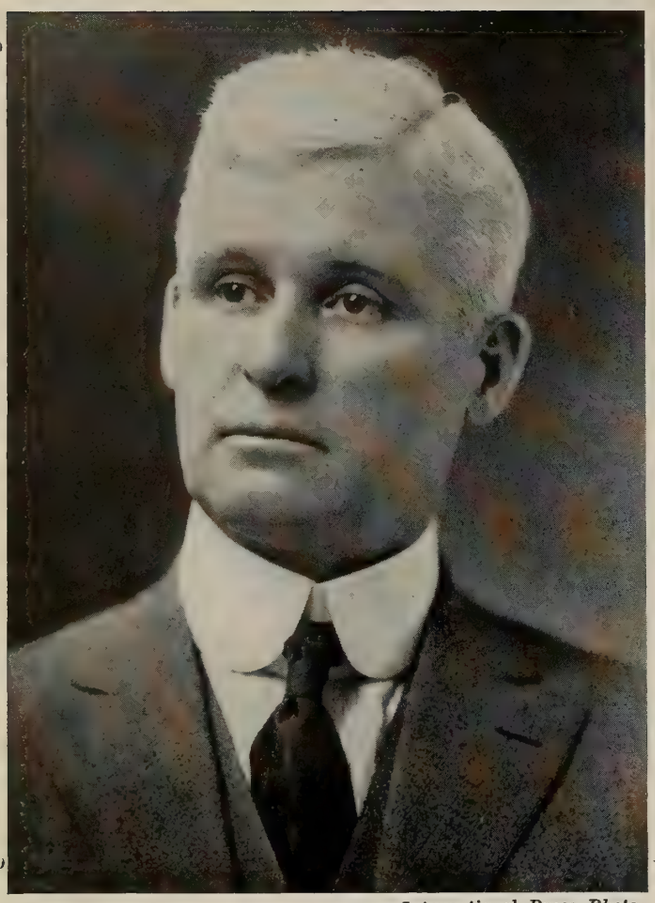
During September the Insurance Department received and dealt with 36 inquiries on the following subjects,—Standing of Companies, 2; examination of policies, 1; sprinkler equipment, 1; policy wordings, 11; rates, 11; building construction, 2; inspection service, 8.

Meat and Canned Food Act

During the recent tour of Association officers and members through the Maritime Provinces, the Canned Fish Section of the Association expressed their dissatisfaction with the amendment to the Meat and Canned Food

Help the Returned Men

Attention of the members of the Canadian Manufacturers Association is directed to the valuable work being done by the Professional and Business Section of the Department of Soldiers Civil Re-establishment in placing men in business positions. The Section, with branches in the principal cities of the Dominion, has a list of returned men qualified to undertake any nature of work in the offices of industrial establishments and, when members are in need of such assistance, they should get in touch with the nearest office of the section and then help to absorb the returned soldiers at present cut of employment.



—*International Press Photo.*

Mr. Angus McLean

Chairman of the Maritime Division who has been appointed a member of the Executive Committee. Mr. McLean is head of the Bathurst Lumber Co., Bathurst, N.B.

Act passed in 1917, regulating the sizes of tins of canned lobster. As the entire lobster industry of the Maritime Provinces was seriously affected, the matter was considered to be of such importance that the full services of the Association were extended on behalf of the Section. As a result the Act has been amended by the House of Commons to the entire satisfaction of members concerned.

Board of Commerce

On October 22nd a deputation from the Association interviewed the Government at Ottawa relative to the Board of Commerce. Objections to the present method of procedure adopted by the Board in making its investigations were set forth in detail and the cabinet ministers who heard the deputation promised to give them consideration.

Fire Prevention Day Results

Reporting on the results of the observance of Fire Prevention Day on October 9th last, Mr. E. Grove Smith, Dominion Fire Commissioner, states that:—"As the result of the joint efforts of all organizations, Fire Prevention Day, 1919, was observed in about 26,000 schools, demonstrations, clean-up campaigns and other effective methods were employed by over 300 fire chiefs; 79 municipal councils passed resolutions approving the official observance of the day; special inspections on forms supplied by this office were conducted in over 6,000 factories, warehouses and large properties, and suitable literature was distributed to the employees of these concerns; 785 newspapers carried matter issued by this office and by the provincial fire marshal departments; 423 made editorial mention of the campaign and 64 dailies in the larger cities and towns of each province gave a full page spread on October 8th. Up to date, (Oct. 18th), 735 factories have signified their intention of instituting a permanent monthly inspection system under our direction, and 405 have undertaken to use our leaflets in all employees' pay envelopes during the next twelve months.

"While the tide is at the flood, it is deemed advisable to give some definite direction to the general interest awakened by Fire Prevention Day. To this end it is the intention to visit all the larger cities in Canada and with the co-operation of the provincial fire marshals, hold conventions and organize local committees to carry on the work. An itinerary is being arranged to commence at Victoria, B.C., on November 10th, and conclude in the Maritime Provinces about the middle of December."

Gain in Membership

Since the annual meeting, according to a report submitted to the Executive Council by the Membership Committee, 93 applications for membership have been accepted and 46 resignations received, a net gain of 47. The Committee points out with satisfaction that none of the resignations were submitted through dissatisfaction with the policies or services of the Association but were due to amalgamations, cessation of business operations and similar causes.

Winnipeg Branch Meets

A general meeting of members of the Winnipeg Branch was held on October 6th, when the delegates to the National Industrial Conference at Ottawa made a report upon the proceedings there. The delegates urged that members individually do everything in their power to give effect to the position taken by the employers' delegates at the Conference.

Ontario Insurance Report

The manager of the Insurance Department has recently prepared a detailed analysis of the report of the Ontario Insurance Commission by Hon. Mr. Justice Masten, copies of which have been mailed to all members of the Insurance Committee. The analysis was discussed at the last meeting of the Committee and favourably commented upon. The manager was asked to prepare a second condensed analysis setting forth briefly a summary of what might be considered to be the attitude of the C.M.A., towards Judge Masten's report and this will be submitted to the Executive Council at an early date for approval.

Ontario Division Executive

A meeting of the Executive Committee of the Ontario Division was held in the King Edward Hotel, Toronto, on October 30th, with the following members present:—Messrs. W. C. Coulter, Chairman, Toronto Branch; Geo. Brigden, Thos. Roden, E. J. Freyseng, and W. M. Inglis, Toronto; S. J. Williams, Kitchener; Fred Hatch, Whitby; W. Cowan, Galt; G. S. Rutherford, Amherstburg, and G. C. Cockshutt, Brantford.

In the unavoidable absence of Mr. Geo. H. Douglas, Chairman, Mr. W. C. Coulter presided. The Committee considered the organization of sub-committees for the ensuing year, and directed the Chairman and Secretary to consult with representative manufacturers in the various zones of the province, inviting nominations before final adjustment.

It was unanimously agreed that a representative membership committee should be appointed—one member of

such Committee to be chairman of each district or zone in the province, the campaign to correspond with the general membership campaign of the Association decided upon during the week, December 1st-5th. After the campaign opens on December 1st local Committees will be expected to wire or mail each night to the Division Secretary the number of members secured during the day—the aim being 100 per cent. membership in every city, town and village.

The following resolution was passed and ordered to be submitted to the Executive Council of the Association: "Resolved that the Ontario Division Executive urge the Executive Council of the Association to send a further deputation to Ottawa to press upon the Dominion Government the immediate appointment of a permanent Tariff Board and that the members of this Board accompany the proposed Investigating Committee of Cabinet Ministers, if the same is appointed."

Information re Exhibitions

Useful service has been performed by the Trade Sections Departments in investigating the various exhibitions which are announced for the next year or two in Great Britain, the United States, South America, South Africa and elsewhere. A memorandum has been prepared dealing with each of these undertakings and showing whether or not they are deserving of the support of Canadian manufacturers. Any one interested in securing information about any proposal for the holding of international exhibitions should communicate with the Department. The exhibitions dealt with in the present memorandum are,—

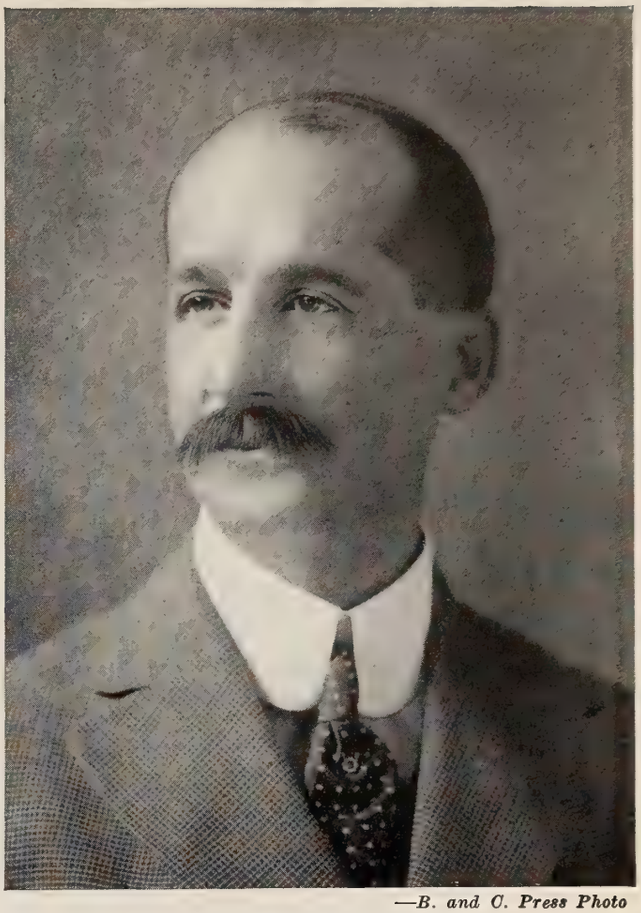
(*a*) A permanent exhibition of samples or photographs (in duplicate) to be used in connection with the propaganda of the Canada Trade Mission in London, England.
(*b*) The British Empire Exhibition to be held in London, England, in 1921.
(*c*) The British Industries Fairs to be held in London, Birmingham and Glasgow, in 1920.
(*d*) A Canadian Exhibition to be held in Agricultural Hall, London, England, in June 1920.
(*e*) A permanent exhibition in the Grand Central Palace, New York.
(*f*) A floating exhibit to be sent to South American ports.
(*g*) A national exhibition to be held in Pretoria, S.A.
(*h*) A sample fair to be held in Brussels, Belgium, in 1920.

Fire Protection Survey

With the approval of the Insurance Committee of the C.M.A., a campaign is at present being conducted by the Dominion Fire Commissioner, Mr. E. Grove Smith, specially directed towards the improvement of factory properties from a fire protection point of view. 5,000 copies of a blank form, with explanatory letter, have been sent to the more important industrial establishments in the Dominion asking for data upon which to base further action. More than 70 per cent. of the forms were promptly returned and large numbers were accompanied by urgent requests for advice. Addressing the members of the Dominion Fire Prevention Association on the campaign, Mr. Smith says:—

"After roughly classifying the returns, it was apparent that in the majority of cases inspection was essential before proper guidance could be given. As this Department is not provided with a staff to carry on such work, arrangements were made with the Canadian Automatic Sprinkler Association whereby the competent engineers of that Association resident at various points throughout the Dominion will, as far as possible, inspect and report upon properties to the Department. While acting under the authorization of the Department, these inspectors will not advise or otherwise influence property-owners in regard to improvements but the Department will directly supply particulars of such improvements and changes as may appear desirable. Where the installation of automatic sprinkler protection is advised, a voluntary agreement entered into between all the automatic sprinkler contracting companies and the Department makes possible the very minimum cost. All items and charges are filed in detail and are carefully scrutinized by the Department.

"From the foregoing it will be recognized that the task undertaken is one of magnitude and importance. At the present time (Oct. 22nd.), thirty-five plants are undergoing inspection and these will be followed by others as rapidly as inspectors are available to do the work. To accomplish the ultimate aim, the co-operation of every fire protection engineer and insurance expert in Canada is urgently needed. The money at present available for fire prevention work by the Department is less than $5,000. This limited amount must meet all contingencies, including salaries, travelling, printing and office expenses, and cannot be further supplemented. While considerable work has been accomplished, it is obvious that the multitudinous demands upon our services cannot be even partially met unless we have the voluntary and willing co-operation of every person qualified to render assistance."



—B. and C. Press Photo

Mr. C. Howard Smith

Chairman of the Montreal Branch and vice-chairman of the new Quebec Division, who has also been appointed a member of the Executive Committee

Membership Campaign

To assist in the membership campaign which will take place during the week of December 1st, a list of non-members has been compiled from the information secured for the Trade Index. This list has been classified according to the five Divisions of the Association, and the names forwarded to the Division Secretaries as a basis for work. The Membership Committee, which has been planning the campaign recommends the following plan,—

(*a*) Each Division should immediately call a meeting of the Division Membership Committee to discuss the organization of the Divisional campaign.
(*b*) Division Secretaries should communicate with a member of the Association in each locality where there are

manufacturers who are not members, asking him to form a local committee for the campaign, to which a list of non-members in the locality will be sent.

(*c*) A circular to be mailed from Head Office in sufficient time to reach all members prior to December 1st, featuring President Howard's appeal to the Annual Meeting for each present member to try to secure one new member this year.

(*d*) After the campaign opens local committees to communicate each night with the Divisional Secretary, stating the number of members secured during the day and the Divisional Secretary to wire the total each night to Head Office.

(*e*) The slogan of the campaign to be "One Hundred per cent. Membership in every City, Town and Village."

Our New Members

At the September meetings of the Membership and Executive Committees, a list of 46 applications for membership was favourably disposed of. Of these, 33 represent new firms, and 13 additional members from companies already members. The new members are as follows,—

P. McA. Carrick	B. C. Pharmacal Company, Ltd., Vancouver, B.C.
E. Fred Simmons	Cravat & Regalia Co., Limited, Vancouver, B.C.
Wm. H. Davies	Davies Paper Box Co., Ltd., Vancouver, B.C.
R. L. Cliff	Dominion Canners, B. C., Limited, Vancouver, B.C.
G. Kostman	Famous New York Cloak Suit Co., Vancouver, B.C.
Geo. E. Herrmann	Vancouver Creosoting Co., Ltd., Vancouver, B.C.
J. C. Pendray	British America Paint Co., Ltd., Victoria, B.C.
Wm. H. Munsie	Shawinigan Lake Lumber Co., Ltd., Victoria, B.C.
H. R. Savage	Standard Steam Laundry Limited, Victoria, B.C.
A. F. Pamenter	Davison Lumber & Mfg. Co., Ltd. Bridgewater, N.S.
D. H. McDougall	Nova Scotia Steel & Coal Co., Limited, New Glasgow, N.S.
A. J. Morrison	Sydney Milling Co., Limited, Sydney, N.S.
L. C. Archibald	Crushed Milk & Cream Co., Ltd., Truro, N.S.
L. R. Baker	Burgess Batteries, Limited, Winnipeg, Man.
L. T. Walls	Central Tools & Forgings, Ltd., Winnipeg, Man.
David I. Dyson	Dyson Vinegar Company, Winnipeg, Man.
A. C. Jones	The Canadian Sander Mfg. Co., Limited, Brockville, Ontario.
Reginald L. St. Clair	St. Clair Brothers, Galt, Ontario.
John C. Breithaupt	The Hastings Tanning Co., Ltd., Hastings, Ont.
F. S. Brown	The Brown Boat Company, Lakefield, Ont.
E. Coleman	Regal Manufacturing Company, London, Ont.
James Mitchell	W. & J. Mitchell, Toronto, Ont.
J. S. Ramsay	Hall Manufacturing Company, Ltd., Summerside, P.E.I.
	Rugg Ball Mfg. Co., Ltd., Ayers Cliff, Que.
Edmund F. Richards	Salem Oil & Grease Co. of Canada, Limited, Farnham, Que.
C. Eug. Marchand	La Manufacture de Matelas, Enrg., Isle Verte, Que.
Thos. V. Bell	Thos. V. Bell, Limited, Montreal, Que.
O. Marchand	La Compagne Marchand Freres Ltee., Montreal, Que.
Travice A. Tod	The Herald Press, Limited, Montreal, Que.
W. J. Carrigan	International Machinery & Supply Company, Montreal, Que.
Ewart G. Horne	Lockwood, Greene & Co. of Canada, Limited, Montreal, Que.
Joseph Murphy	Lymburner Brass Works, Inc., Montreal, Que.
Gerald M. Smith	Precision Tool & Machine Co., Limited, Montreal,

The additional members accepted were the following,—

A. P. Tynan	Giddings, Limited, Winnipeg, Man.
Fred J. C. Cox	Oribo Manufacturing Co., Ltd., Winnipeg, Man.
W. E. Sprague	Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Chas. W. Corbett	W. T. Rawleigh Co., Limited, Toronto, Ont.
J. G. Perrin	Willys Overland, Limited, Toronto, Ont.
J. F. MacKay	Willys Overland, Limited, Toronto, Ont.
R. S. Chilvers	Berliner Gramophone Co., Ltd., Montreal, Que.
J. T. Dohm	International Machinery & Supply Company, Montreal, Que.
R. J. Hiller	International Machinery & Supply Company, Montreal, Que.
C. H. Lyons	The Nichols Chemical Co., Ltd., Montreal, Que.
A. D. Huff	Riordon Pulp & Paper Co., Ltd., Montreal, Que.
Chas. Ritz	Robin Hood Mills, Limited, Montreal, Que.
G. A. Irwin	Algoma Steel Corporation, Ltd., Montreal, Que.

At the October meetings of the Membership and Executive Committees, the following companies were admitted to membership.—

Steel Ships	J. Coughlan & Sons, Vancouver, B.C.
Barrels, etc.	Bridgewater Cooperage Co., Ltd., Bridgewater, N.S.
Shirts, collars	John Forsyth, Limited, Kitchener, Ont.
Wiping cloths	E. Pullan Wipers & Waste Co., Toronto, Ont.
Mineral waters	J. E. T. Morris, Charlottetown, P.E.I.
Canned goods	J. W. Windsor & Co., Ltd., Montreal, Que.
Ships	Tidewater Shipbuilders Ltd., Three Rivers, Que.
Wool stock	British Wool Stock Co., Ltd., Toronto, Ont.
Paints, stains	Sturgeons Limited, Toronto, Ont.
Flour, butter, etc.	Dauphin Milling & Creamery Co., Dauphin, Man.
Sash, doors, etc.	Dauphin Sash & Door Factory, Dauphin, Man.
Sash, doors, etc.	The Fusee McFeetors Co., Ltd., Neepawa, Man.
Sweaters, etc.	S. Coleman, Winnipeg, Man.
Talking machines	Melotone Talking Machine Co., Winnipeg, Man.
Dresses	Sterling Mfg. Co., Ltd., Winnipeg, Man.
Lightning rods	Shinn Mfg. Co. of Canada, Ltd., Guelph, Ont.
Ships fittings	Ontario Specialties, Ltd., Ottawa, Ont.
Electric fixtures	Ottawa Brass Mfg, Co., Ottawa, Ont.

Additional members accepted in October were as follows,—

Ashley A. Colter	Smith Foundry Co., Ltd., Fredericton, N.B.
W. S. Kilburn	John Palmer Co., Ltd., Fredericton, N.B.
W. K. Ganong	Ganong Bros., Ltd., St. John, N.B.
Walter Booth	Booth Coulter Copper & Brass Co., Ltd., Toronto, Ont.
Daniel Strachan	Imperial Oil, Limited, Toronto, Ont.
G. A. Myers	Borden Milk Co., Limited, Truro, N.S.
Andrew Sangster	Canadian Ingersoll Rand Co., Ltd., Sherbrooke,
Frank S. Hodgins	Williams, Greene & Rome Co., Ltd., Kitchener,

Winnipeg Income Tax

A special committee of the Winnipeg Branch has under consideration the application of the city of Winnipeg for power to assess an income tax on the incomes of individuals and corporations. In the case of individuals the tax is graduated from one per cent. on the first $1,000 of taxable income up to 8 per cent. on all income in excess of $10,000. On the taxable incomes of corporations the rate is 5 per cent. When this matter was discussed before, the Branch took the position that the Dominion Government's requirements to meet liabilities incurred, would be so heavy that this field of taxation should be left to that Government and that civic or provincial governments should not encroach thereon, until it was known what income taxes the Dominion Government would have to assess to meet its liabilities.

Laying Ground for Kitchener Branch

Formation of a branch organization at Kitchener, Ont., in connection with the Canadian Manufacturers Association was emphasized at a meeting of the Kitchener and Waterloo Manufacturers Association, held in the Canadian Club, Kitchener, on Monday, October 27. In addition to a large attendance of local manufacturers there were present a delegation of Canadian Manufacturers officers and officials, including Messrs. J. S. McKinnon, 1st vice-president of the general Association; George H. Douglas, Chairman of the Ontario Division; J. E. Walsh, General Manager; J. R. K. Bristol, Manager Tariff Department, and H. Macdonold, Legal Secretary and Secretary Ontario Division. Mr. H. M. Snyder, chairman of the local Association, presided, and having welcomed the visitors, vacated the chair in favor of Mr. Sam J. Williams.

Mr. J. S. McKinnon delivered an address and pointed to the war achievement of Canada as an augury of the industrial development, which was certain to follow if the manufacturers took advantage of their opportunity. He bore testimony to the enterprise and progressiveness of the manufacturers of Kitchener and Waterloo, whose factory products were known far beyond the limits of their province. He referred to the services rendered by patriotic manufacturers like Mr. Sam J. Williams, whose enterprise had contributed so much to the prosperity of Kitchener and whose welfare organization had won the appreciation of all. Mr. McKinnon also referred to the value of the Canadian Manufacturers Association, urging that all manufacturers should be active members. He quoted specific instances of direct benefit obtained by his own firm.

Mr. J. E. Walsh gave a comprehensive resumé of the progress of the Association for the past thirteen years. A recent visit to the East had convinced him of the healthy optimism pervading all the industries. Mr. Walsh then

reviewed the services rendered by the various departments of the Association, showing that it would be impossible for a local or sectional organization to command services such as the Canadian Manufacturers Association was able to furnish. The organization of an office in Ottawa had been of immense service, enabling them to obtain quick action in regard to important matters affecting many branches of industry. The allocation of the Dominion into five divisions would ensure in a special manner the organization of district branches, so that the most efficient services would be at the command of all sections.

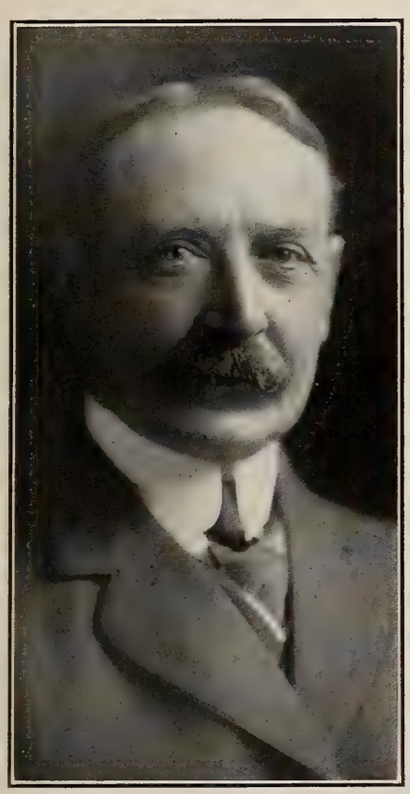
Mr. Bristol urged that they should begin to organize groups of industries. He spoke of the relation of the tariff to the industries, explaining that all civilized countries had found the adoption and application of the tariff in some form an absolute industrial necessity, and that if Canada was to maintain her industrial supremacy it must proceed along similar lines.

General emphasis was laid by all the speakers on the expediency of Kitchener at once organizing as a District Branch of the Canadian Manufacturers Association, and it is expected that this will be consummated at an early date.

The speakers being accorded a hearty vote of thanks, a highly successful meeting was brought to a close by the singing of the National Anthem.

Meetings Held in the Maritime Provinces

By J. T. STIRRETT
General Secretary, Canadian Manufacturers Association



Mr. W. S. Fisher
Second Vice-President, C.M.A., who did good work in connection with the Maritime Tour

A VERY successful tour of the Maritime Provinces has just been completed by a number of members of council and heads of departments of the Association. The tour was arranged in connection with the Executive Council meeting which was held in St. John, N.B., on October 1st, followed by the semi-annual meeting of the Maritime Division of the Association in St. John on October 2nd. Council decided to hold the October meeting in St. John in order to allow Western and Central Canadian members the opportunity of meeting our members in the Maritime Provinces, and also to bring the services of the Association to those provinces.

The party left Toronto on September 28th. On the following day the Executive Committee met in the Association's Montreal offices, and left for Fredericton on the night of September 29th. A business meeting was held in Fredericton followed by a trip of inspection to various industries. Manufacturing appears to be in a prosperous condition in the City of Fredericton, and a considerable number of plants are making extensions to their premises in order to take care of increased business.

Arrangements for the Executive Council meeting in St. John had been completed by the local members under the direction of Mr. W. S. Fisher, Second Vice-president of the Association. The following is a complete list of those who were present at the meeting of Council:

T. P. Howard	Phoenix Bridge & Iron Works, Ltd., Montreal, Que.
C. Howard Smith	Howard Smith Paper Mills, Ltd., Montreal, Que.
W. H. Shapley	Sterling Action & Keys, Ltd., Toronto, Ont.
S. Harris	Harris Lithographing Co., Toronto, Ont.
H. A. Telfer	The Telfer Mfg. Co., Toronto, Ont.
H. W. Fleury	J. Fleury's Sons, Aurora, Ont.
Geo. H. Douglas	Thornton & Douglas, Ltd., Hamilton, Ont.
M. R. Meldrum	Herbert Morris Crane & Hoist Co., Niagara Falls, Ont.
G. D. McKinnon	McKinnon Steel Co., Ltd., Sherbrooke, Que.
P. E. Joubert	Lamontagne, Ltd., Montreal, Que.
F. W. Stewart	Cluett, Peabody & Co., Montreal, Que.
Joseph Picard	Rock City Tobacco Co., Ltd., Quebec, Que.
Geo. Fleming	Phœnix Foundry Co., St. John, N.B.
R. H. McKay	McKay & Fraser, New Glasgow, N.S.
Rufus E. Dickie	————, Stewiacke, N.S.
A. D. Ganong	Ganong Bros., St. Stephen, N.B.
Jas. F. Cumming	Jas. W. Cumming & Son, New Glasgow, N.S.
Alex. L. Fowler	Fowler Milling Co., St. John, N.B.
C. S. Christie	Christie Woodworking Co., St. John, N.B.
R. A. McAvity	T. McAvity & Son, St. John, N.B.
Cheslie Peters	C. H. Peters & Sons, St. John, N.B.
Lewis Connors	Connors Bros., Black's Harbor, N.B.
A. L. Foster	T. S. Simms Co., St. John, N.B.
J. D. Palmer	Hartt Boot & Shoe Co., Fredericton, N.B.
W. S. Fisher	Enterprise Foundry Co., Sackville, N.B.
W. F. Knoll	Jas. Pender & Co., Ltd., St. John, N.B.
Alex. Wilson	Wilson Box Co., St. John, N.B.
W. A. Christie	Christie Bros. Co., Amherst, N.S.
C. E. Barnard	Burnham Morrill Co., Portland, Me.
Wm. Knight	Amherst Foundry Co., Amherst, N.S.
W. C. Newcombe	Eastern Linen Mills, Moncton, N.B.
F. C. Beatteay	Stetson-Cutler Co., St. John, N.B.
J. E. Walsh	Canadian Manufacturers Association, Toronto.
J. T. Stirrett	Canadian Manufacturers Association, Toronto.
J. R. K. Bristol	Canadian Manufacturers Association, Toronto.
H. R. Thompson	Canadian Manufacturers Association, Amherst.

The decision to hold the Council meeting in conjunction with the semi-annual meeting of the Maritime Division was very satisfactory, as it made possible the transaction of a great deal of business of peculiar interest to the three Maritime Provinces. Visitors were taken through some of the principal industries of the city and made an extensive trip of the harbor. Special interest was taken in the very extensive harbor developments at Courtenay Bay. The visitors were impressed with the magnificent advantages which St. John possesses as a winter port and as the terminus of the Canadian Pacific Railway.

The party arrived at Moncton on October 3rd, visited a number of industries and held the usual business meeting. The City of Moncton has doubled its population within the past few years and now includes with its suburbs over 20,000 people. Those who had not visited Moncton for ten years scarcely recognized the city, so great has been the development in the building, not only of factories and business establishments, but also of dwellings. About seventy-five persons attended a luncheon in Moncton given in honor of the Association's delegates. These included members of the Board of Trade, manufacturers, and other business men.

The party arrived in Truro on October 4th, inspected the industries and noted with gratification two or three comparatively new factories.

In Halifax, where the party remained two days, they had an excellent opportunity not only to visit the industries, but

to inspect the harbor developments and the new freight handling facilities which are being established in connection with the Canadian Government Railways. A joint meeting was arranged by the Halifax members, including the Lieutenant-Governor of Nova Scotia, representatives of the banks, railways, business interests and also members of the Association.

In Sydney the party went through several plants and were agreeably surprised at the remarkable growth of this ocean port. The party also visited North Sydney for the purpose of studying the transportation arrangements to Newfoundland.

In New Glasgow, where the party arrived on October the 8th, they had the pleasure of witnessing the launching of the Canadian sealer which was built in New Glasgow. They also made the usual inspection of the principal industries. New Glasgow is one of the most thriving manufacturing towns in the Maritime Provinces.

Probably one of the best meetings of the trip was held in Amherst, the headquarters of the Maritime Division of the Association. There was practically a complete attendance of all the manufacturers in the vicinity. The party were glad to see that the city was continuing the extraordinary rapid growth which it has enjoyed during the past ten years.

The last meeting of the trip was held in Charlottetown and was successful in every way. Local members had invited the Premier of Prince Edward Island and other leading business men to meet the visitors, and the problems of the Island were fully discussed.

The delegation were unanimous in considering the trip through the Maritime Provinces an unqualified success, at least from their point of view, and from assurances which were received throughout the journey they were lead to believe that our members in the Maritime Provinces had received some benefit. The meetings which were held at the places mentioned above were unusually interesting and instructive. The heads of departments of the Association who were with the party, took up in detail the various technical matters upon which members wished to secure information, but, in addition to this, national problems and problems affecting the Maritime Provinces as a whole were very fully and frankly discussed, with the result that a great deal of useful information was elicited. The visiting party were greatly impressed with the prosperity of the Maritime Provinces from one end of these provinces to the other. There appeared to be no poverty whatever. The towns and cities visited gave unmistakable evidence of steady and substantial growth. Trade conditions generally were very satisfactory and the average prosperity of city and country was high.

Canadian exports of pulp and paper during August, 1919, amounted in value to $8,348,179, as compared with $7,118,398 in August, 1918, a gain for this year of $1,229,781. Exports of pulpwood amounted to $944,877, against $1,978,012 a year ago, a falling off of $1,033,135. The paper exports included 57,817 tons of newsprint, valued at $4,140,812, the importing countries including the United Kingdom, United States, Argentine Republic, Australia, Brazil, British South Africa, Cuba, New Zealand, Peru and other countries.



THE TOURING PARTY AT FREDERICTON

Front row, left to right—H. W. Fleury, J. Fleury's Sons, Aurora; W. H. Shapley, Sterling Actions & Keys, Toronto; G. D. MacKinnon, MacKinnon Steel Co., Sherbrooke; H. R. Thompson. Secretary Maritime Division, Amherst; P. E. Joubert, Lamontagne, Ltd., Montreal.

Second row—H. A. Telfer, Telfer Bros., Ltd., Toronto; J. T. Stirrett, General Secretary, Toronto; J. R. K. Bristol, Manager Tariff Department, Toronto; C. Howard Smith, Howard Smith Paper Mills, Montreal; T. P. Howard, Phœnix Bridge & Iron Works, Montreal; J. E. Walsh, General Manager, Toronto; F. W. Stewart, Cluett, Peabody & Co., Montreal; Sam Harris, Harris Litho Co., Montreal.

Third row—H. S. Campbell, president of Board of Trade, Fredericton; C. K. Palmer, John Palmer Co., Fredericton; J. D. Palmer, Hartt Boot & Shoe Co., Fredericton; G. H. Douglas, Thornton & Douglas, Hamilton; M. R. Meldrum, Herbert Morris Crane & Hoist Co., Niagara Falls; R. H. Simmonds, secretary Board of Trade, Fredericton; R. H. Bennett, Gleaner Limited, Fredericton; Mr. Campbell, Fredericton; W. S. Kilburn, John Palmer Co., Fredericton.

Back row—E. J. Kingsley, Canadian Cottons, Marysville, N.B.; Dr. C. C. Jones, Chancellor Univ. of N.B.; W. T. Chestnut, Chestnut Canoe Co., Limited; J. A. Reid, Hartt Boot & Shoe Co.; Jas. S. Neill, Jas. S. Neill & Sons; F. B. Edgecombe, F. B. Edgecombe Co.; R. P. Allen, Fredericton Mail; Mr. Smith, Fredericton.

Quebec Division is Organized at Montreal

Enthusiastic Meeting Was Held in the Windsor Hotel on October 16 —Officers and Committees Elected—Several Interesting Addresses Delivered and Discussions Held—A Good Augury for the Future

By W. P. HUGHES
Secretary, Quebec Division

THE keen interest displayed by members of the Association located outside of the City of Montreal, and the bright, instructive nature of the discussions throughout the sessions were the outstanding features of the Quebec Division Organization Convention that was held in the Windsor Hotel, Montreal, on Thursday, October 16th last.

When the President, Mr. T. P. Howard, called the morning session to order there were present representative manufacturers from nearly all of the principal industrial centres of the Province, and from the opening moments it was evident that the divisional organization would commence its career under most auspicious conditions. Mr. Howard welcomed the members, touching on the importance to them of co-operation in dealing with their common problems. He intimated that the formation of a Quebec Division was aimed at providing machinery for such study, and expressed the earnest hope that the members within the Province would make the most out of the opportunity which was thus offered. He explained that they were fortunate in having with them Mr. J. E. Walsh, the General Manager of the Association, and Mr. J. R. K. Bristol, the head of the Tariff Department. He then called on Mr. Walsh to outline to the meeting what the Association Executive had had in mind when the re-organization into divisions had been passed last June.

To Give More Efficient Service

Mr. Walsh reviewed the development of the plan. It had been felt for some time, he said, that means should be evolved for bringing the services of the Association into closer touch with the members and also bringing the members into closer touch with one another. It was a matter of better administration of the Association's affairs. There had been the criticism that there was too much centralization in the past, and that members located outside of the two centres of Montreal and Toronto had had little to say in the formation of the Association's policies. Such criticism had been particularly levelled against Toronto, no doubt due to the fact that as the head office of the Association was located in that city and most of the Committee meetings were called in that centre, such meetings had been attended for the most part by Toronto members. This, Mr. Walsh maintained, fully explained the part played by such members and denied that there had been any conscious endeavor to keep the control of the Association's policies in the hands of a few. About a year ago there had been considerable agitation to have the head office of the Association moved to Ottawa. A compromise had been effected whereby a representative had been appointed in that city, and Mr. Walsh paid a high tribute to the effective work which Mr. G. M. Murray and his assistant, Mr. Blake Robertson, had accomplished. In fact, the value of their work had been such as to make the Executive wonder how the Association had ever got along without it. It had been still felt, however, Mr. Walsh explained, that the re-organization of the members in the various provinces into divisions, would co-ordinate and facilitate the whole work of the Association. The keynote of the whole plan was service to the members, and it was hoped that through such machinery the members would use this service. He then outlined briefly the work which would properly come under a Division, mentioning police work and the development of industries.

Branches to Carry On Still

In the discussion which followed it was pointed out that the branches within a Division would still carry on and would have within their territory sections of the provinces as at present. Connecting and unifying the work of all the branches would be the provincial Executive Committee and officers.

The chairman then explained to the meeting that it was open for them to decide what number would constitute the Provincial Executive Committee. He intimated that 23 nominations had been received by the Secretary for nomination to this Committee and suggested that if it met with the views of the meeting this number would not be in any way too large for the important work which would be carried on by it.

On motion of Mr. Paul E. Sise, seconded by Mr. S. J. B. Rolland, the meeting unanimously decided to elect a committee of 23, to which would be added the chairmen of the various branches within the Province. Mr. Howard then announced that the only nominations which had been received for chairman and vice-chairman were Mr. G. H. Duggan and Mr. C. Howard Smith, and they were declared elected by acclamation. In the absence of Mr. Duggan (which was unavoidable, owing to a special convocation at Queen's University, where he was the recipient of an honorary degree), Mr. Smith was called to the chair. Mr. Smith thanked the members for the singular honor which had been conferred upon him, and expressed his confidence in the future usefulness of the Division.

The secretary then read the list of nominations which had been received for the Executive Committee—these were as follows:

Coghlin, B. J.	Montreal.	Warrington, J. E.	Quebec.
Grothé, Raoul	Montreal.	MacKinnon, Geo. D.	Sherbrooke.
McMaster, R. H.	Montreal.	Welsh, H. W.	Sherbrooke.
Ramsay, Walter B.	Montreal.	Laframbroise, C. J.	St. Hyacinthe.
Richard, J. A.	Montreal.	Fraser, D. J.	St. Johns.
Stewart, F. W.	Montreal.	Alain, J. E.	Victoriaville.
Sise, Paul E.	Montreal.	Paradis, A. A.	Victoriaville.
Smardon, Walter	Montreal.	Bodden, W. F.	Victoriaville.
Fortier, J. H.	Quebec.	Rolland, Jean	St. Jerome.
Gignac, O. A.	Quebec.	Miner, W. H.	Granby.
Picard, Jos.	Quebec.	Matheson, W. H.	Shawinigan.
Ryan, Robert	Three Rivers.		

Ex Officios:

Sadler, W. J., Chairman Montreal Branch.
Sangster, Andrew, Chairman Sherbrooke Branch.
Letcurneau, Louis, M.P., Chairman, Quebec Branch.

These were declared elected and thus became the first Executive Committee of the Quebec Division.

Noon Luncheon

The "out-of-town" members were the guests of the Montreal branch members at a luncheon served immediately

after the morning session. Among those present as guests were:

Renault, Raoul	Secretary, C.M.A., Quebec Branch, Quebec.
Picard, Jos.	Rock City Tobacco Co., Quebec.
Gignac, O. A.	J. H. Gignac, Ltd., Quebec.
MacKinnon, Geo. D.	MacKinnon Steel Co., Ltd., Sherbrooke.
Boivin, P. E.	Granby Elastic Web Co., Granby.
Trotter, W. C.	Standard Clay Products Co., Ltd., St. Johns.
Fraser, D. J.	The Singer Mfg. Co., St. Johns.
Gareau, J. O.	The E. T. Corset Co., Ltd., St. Hyacinthe.
Bodden, W. F.	Mica Insulator Co., Ltd., Victoriaville.
Alain, J. E.	The Victoriaville Furniture Co., Ltd., Victoriaville.
Paradis, A. A.	Victoria Hide & Skin Co., Victoriaville.
Farand, J. A.	The Plessisville Foundry Co., Plessisville Sta.
Savoie, J. A.	The Savoie Guay Co., Plessisville Sta.
Kirouac, O. F.	La Cie des Industries Cantin, Warwick.
Bellavance, A.	La Cie de Lainage de Rimouski, Rimouski.
Ball, H. S.	The Domnion Snath Co., Waterville.

Lieut.-Col. W. J. Sadler, Chairman of the Montreal Branch, extended a hearty welcome to the visitors, and a cordial spirit of friendliness was in abundant evidence throughout the function.

Afternoon Session

Three very interesting subjects occupied the attention of the afternoon meeting. "Needed Tariff Changes" was the subject of an instructive address by Mr. J. R. K. Bristol, head of the Customs Department of the Association. A thoughtful presentation of the present day question of "Profit sharing" was given by Mr. J. H. Sherrard and Mr. F. W. Stewart.

In opening his address on "Needed Tariff Changes," Mr. Bristol alluded to the last report of the Minister of Finance to the effect that the country was ripe for a revision of the tariff. He pointed out, however, that the economic conditions of European and other countries had been such as to have prevented them arriving at the stage of stability to permit of Canada attacking the tariff problem this autumn at least. He referred to the resolutions which had been adopted by the annual meeting urging the Government to promote preferential tariffs applicable within the United Kingdom and possessions, and the appointment of a Tariff Commission. He pointed out that all other countries are uniformly in favor of a high tariff, and thought it would be rank folly to even talk of lowering the tariff at this time.

Offset the Advantages

Asked as to the effect of the preferential tariff already established, Mr. Bristol thought that it had been very beneficial in increasing trade between Great Britain and the colonies, but that United Kingdom manufacturers had stated that they had not derived the benefits that they should have by reason of the increased ocean rates which offset the advantages obtained by the tariff.

Mr. Bristol's main point was in the urging of the appointment of a Tariff Advisory Board to study and deal with matters appertaining to the tariff. To show the need for the establishment of the preferential tariff the speaker showed that Canada had imported $800,000,000 worth of goods during the past year from the United States, while that country had only imported $400,000,000 worth from Canada, and that the average *ad valorem* duty of the United States with its 110,000,000 of people is from 17 to 46 per cent., while that of Canada is less than 17 per cent.

Mr. D. J. Fraser thought that the Association should fight strongly against any reduction in the tariff, as he does not see how most Canadian manufacturers could carry on with less than at present.

The question of German competition was also raised, and it was urged that steps be taken to protect those manufacturers who, during the war, started making lines of commodities which had hitherto been supplied by German manufacturers. It was shown that German and Austrian manufacturers were already entering the field with a sharp challenge to Canadian manufacturers of these lines, in spite of the economic conditions obtaining in Central Europe.

Profit-Sharing

Mr. J. H. Sherrard, of the Alaska Bedding Co., Ltd., outlined a plan which has been in operation in his company for nine months for obtaining greater production and a general improvement of conditions through profit-sharing with employees. Mr. Sherrard stated that early last year his company came to the realization that the dollar was no longer an incentive to greater production by its workers and therefore carefully studied plans for increasing production along different lines. Under the scheme which was decided upon each employee of the company receives a yearly dividend upon his yearly earnings on the same basis as the common stockholders of the company.

An arbitration board has been established to pass upon the cases of any employees discharged. It was promised that no employee would be discharged without cause, and any one discharged could go before this board for a hearing as to the justice of his dismissal.

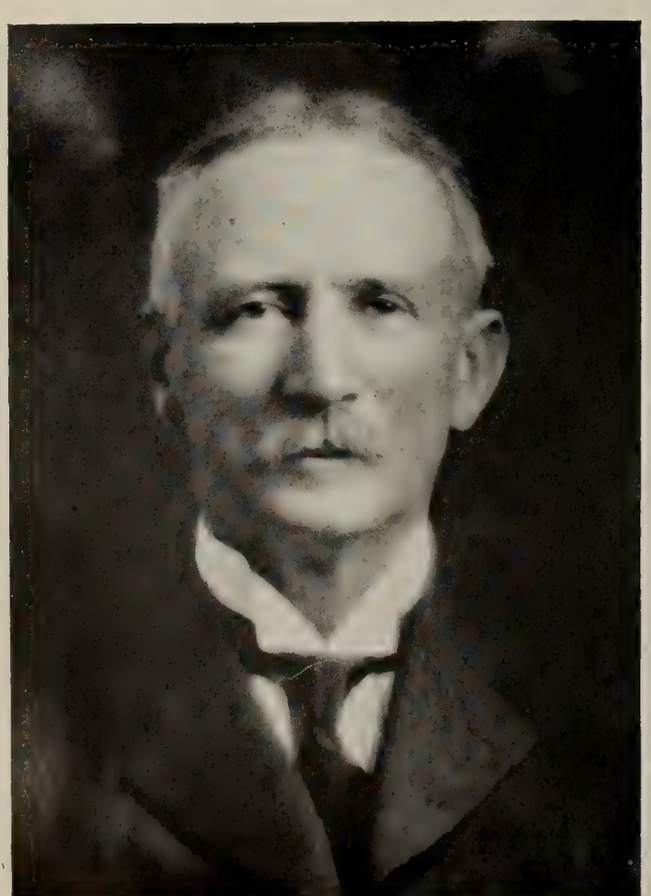
Mr. Sherrard stated that the plan was successful up to date in increasing production, decreasing waste and promoting efficiency generally.

The Plan Submitted

Mr. F. W. Stuart, of the Cluett-Peabody Company, submitted the following plan which General Manager Walsh proposed that he hand to the incoming Executive to be submitted to the Industrial Relations Committee:

"The weak point of all profit-sharing plans which I have examined, is the condition created by the non-distribution of profits during periods when there are no profits to distribute.

"Possibly 75 per cent. to 85 per cent. of wage-earners live up to their incomes, whether



—B. and C. Press Photo

Mr. G. H. Duggan

Who enjoys the distinction of being the first chairman of the Quebec Division, C.M.A.

such incomes are straight wages, or wages and bonus, or wages and share of profits.

"When shares of profits are received over a term of prosperous years, and a period of depression is reached, and the distribution of a share of profits is discontinued, many employees, anticipating their share of profits, and having possibly undertaken obligations which they figured upon liquidating with their share of profits, are placed in a very undesirable and serious position, in not being able to meet these obligations.

"Dissatisfaction, suspicion and discontent is therefore created, to the detriment of the industry in which this condition has been brought about.

"So far as I can learn, the wage-earner with a family or dependents to support, wishes a plan or a system which will assure him or her a regular income from year to year, no matter what the economic conditions may be. It is, therefore, desirable to devise a plan which will enable this to be done, without being too great a charge on the resources of the industry concerned, or increase the fixed charges to too great an extent.



Organizers of the Quebec Division

Group of well-known manufacturers present at the recent organization of the Quebec Division in Montreal

"Having this in mind, I submit the following as a basis, or plan, to work upon, to perfect a system which would be fair and in the interests of employers and employees alike:

"First, a fair wage, commensurate with the cost of living, must be paid. A per cent. of the total amount of wages paid, equivalent to the per cent. of dividend paid on preferred stock, be placed in a fund and invested in Government or similar securities; this fund to be the property of the employees and administered by a committee comprised of members of the executive of the company and of the employees.

"If 7 per cent. is paid on preferred stock, 7 per cent. of wages would be a fixed charge on the business and placed semi-annually or annually in this fund.

"If the wages of a company totalled $1,000,000, the annual contribution to the fund would be $70,000. The interest, say 5 per cent., on this amount, would give an additional revenue of $3,500.

"This amount added to the fund covering a period of, say five to ten years, could reasonably be assumed to serve its purpose during a period of depression, of say two to three years.

Object of the Fund

"The object of the fund would be to take care of such conditions, or others, as follows:

"During times of depression, if the factory is running on short time, the difference between short running time and regular running time would be paid from the fund.

"If the plant is closed for repairs, vacation, or any other reason, partial or full wages would be paid from the fund.

"The fund would be used for paying accident and sickness insurance—the latter possibly to include illness of any member of an employee's family, who may be too young or too old to earn a wage.

"A fixed amount would be paid for every birth or death in the family of an employee. The fund could also act as a pension fund, assuring an income to retired aged employees.

"The big problems which face the average wage-earner, are the periods of unemployment, working on short time, illness in the family with its additional expense, the closing down of the plant for repairs, vacation, or other reasons, and cutting off his income for periods which run him into debt, which means months or years of saving to wipe out.

"The plan, which, in my opinion, will do away with the anxieties, troubles and conditions which are created during periods such as these, will be the one which will tend to go far towards making living conditions of the average family satisfactory to them, and bring happiness and contentment to employees in factories, offices, and warehouses.

"Assure a regular wage from year to year with provision for illness, accident, old age, etc., and I believe there will be very few industrial disturbances amongst employees. I am sure that such a plan as I have outlined, carefully worked out, and covering all the good and bad features which might arise, will be acceptable to employees generally, and do away with the weak features of weekly, monthly, or annual cash or stock distribution of profits, which are usually spent as received and no provision made for the meeting of unusual or extraordinary conditions, over which the wage-earner has no control."

One of the most lively discussions which took place during the day followed the addresses of Messrs. J. H. Sherrard and F. W. Stewart, which in itself was evidence of the fact that the subject of "Profit-sharing" was being seriously studied by a great number of the members present.

Executive Committee Meeting

Following the afternoon session, the first meeting of the Provincial Executive Committee was held with Mr. C. Howard Smith presiding. The chief business concluded was the appointment of a Sub-Executive Committee, consisting of the chairmen of the Montreal, Quebec and Sherbrooke branches, together with Messrs. B. J. Coghlin, F. W. Stewart, J. A. Richard, Jean Rolland, Walter B. Ramsay, and G. H. Duggan, and C. Howard Smith as ex-officios. It was decided that five members of this sub-committee would constitute a quorum. A Legislation Committee was also appointed, consisting of Messrs. Louis Letourneau, R. H. McMaster, J. A. Richard, Geo. D. MacKinnon, Robt. Ryan, W. H. Walsh, J. E. Alain, and G. H. Duggan and C. Howard Smith, ex-officios. The quorum for this committee was fixed at four.

After a general discussion as to the work which might be expected to come before the Executive this year, the meeting was adjourned subject to the call of the Chairman.

At the informal dinner given in the evening, which was one of the most pleasant features of the day, a strongly-worded resolution presented by Mr. F. W. Stewart, seconded by Lieut.-Col. W. J. Sadler, opposing any acquisition of the G.T.R., was unanimously adopted. The text of this resolution was as folows:

"In view of the grave financial responsibilities already assumed by the Dominion of Canada through the acquisition

and operation of railroads, which responsibilities, added to a public debt enormously increased by war expenditure, necessitates a heavy burden of taxation on the country, and in view of the actual results of such Government operation of railroads both in Canada and the United States;

"Be it resolved that this general meeting of the members of the Province of Quebec Division of the Canadian Manufacturers Association, held in Montreal, on October the 16th, places itself on record with the Dominion Government as being unalterably opposed to the contemplated acquisition and operation by the Government of the Grand Trunk Railway."

The Secretary was instructed to communicate the same by wire to Sir George Foster, the Acting Prime Minister, and this was done immediately.

Compulsory Education

Prof. J. A. Dale, of McGill University, gave a scholarly address on compulsory education in Quebec Province, in which, while avoiding racial and religious differences, he pointed out the necessity for a general compulsory system of education, in order that all children might be given equal opportunity, not merely in their own interests, but in those of the State.

His argument was ably seconded by Mr. W. E. Patenaude, who told of the work of the Board of School Commissioners in securing a proper attendance at school, especially of children of the earlier grades. Mr. Patenaude supported the idea of compulsory education, as designed to give all the youth of the country opportunity to develop their talents to their own interests and those of the State.

Following these addresses the President, Mr. T. P. Howard, spoke most eloquently to the members on Association matters. In part he said: "Our Association is looking for peace, not fight. But if a fight should come we want to be ready, whether it is a fight on the tariff or on the buying of the Grand Trunk. When I was elected your president I said we had been doing too much pussy-footing, and I repeat it now. We represent the largest and most important body in Canada, and we should be prepared to take a decided stand, whether on matters of compulsory education, industrial relations or the labor problem. As to the latter, some people think we are out to fight labor interests. We are not. On the contrary, we are out to do everything we possibly can to work harmoniously with them. Our Industrial Committee is doing everything possible for peace, but if we must fight we will fight standing up, not lying down. If the Canadian Manufacturers Association is to be licked it will be licked standing up, not lying down."

Proceeding, Mr. Howard sketched the growth of the C.M.A. from its organization in 1872 to its present membership of 3,700, with divisions in Ontario and Quebec, and hoped for a membership of 5,000 for which he asked those present to work. As to the divisional organizations, Mr. Howard stated they had been formed for provincial purposes. The Quebec division would work for Quebec interests, and the Ontario division for its interests, subject to the general jurisdiction of the Association. In this Mr. Howard drew special attention to the manner in which the French and English-speaking members in the Province were working together.

Brief addresses were given by others connected with the C.M.A. work. Throughout the dinner an excellent entertainment programme was enjoyed by one and all, and expressions of opinion were heard on all sides to the effect that the day's work had been highly satisfactory, and that the first convention augured well for the future of the Division.

Organization of Ontario Division Completed

By H. MACDONALD
Secretary, Ontario Division

THE organization meeting in connection with the formation of the Ontario Division of the C.M.A. was convened in the King Edward Hotel, Toronto, on Thursday, October 16. There was a large and representative attendance of manufacturers, including quite a number from points outside Toronto.

Mr. Thos. Roden, Chairman of the Organization Committee, presided, and after luncheon explained that by amendment of the Association by-laws passed at the last annual meeting of the Association, members located within the Province of Ontario were created an Ontario Division of the Association. This, however, did not affect the branch organizations as at present constituted. The chief reasons for the change were uniformity in district organization. There were now the Maritime, the Quebec, the Ontario, the Prairie Provinces and the Pacific Divisions, and closer co-operation among the members so located was desirable. As a result of the new organization, members within a Division will be enabled, through their duly elected officers and committees, to deal with matters of common interest, such as provincial legislation, industrial conditions within the Province, policies of the Association as they affected the Divisional members, etc.

The scheme had been inaugurated at a meeting of representative Ontario manufacturers held in Toronto, on 20th March last, which had carefully considered the situation, and after submitting a report to the Executive Committee of the Association, it had been referred to, and had received the unanimous approval of the Association at the last annual meeting.

Apologies for absence having been intimated from: Senator Nicholls, Canadian General Electric Co., Limited; Arthur Hewitt, Consumers' Gas Co. of Toronto, Ltd.; Adam Hall, Pres. Adam Hall, Limited, Peterborough; Ingersoll Packing Co., Ltd. Ingersoll; John Goodison Thresher Co., Ltd., Sarnia; Cyrus A. Birge, Steel Co. of Can., Ltd., Hamilton; A. W. White, Geo. White & Sons Co., Ltd., London; Geo. D. Forbes, A. R. Forbes Co., Ltd., Hespeler; the Chairman submitted the following report of the Organization Committee:

At a conference of representative Ontario members held in Toronto on March 20, 1919, it was unanimously agreed that the Association should now begin a period of intensive organization. During the past seventeen years, a frame work has been created from coast to coast, with branches covering all the provinces; now the frame work needs a certain amount of enlargement and consolidation, in order to achieve its maximum effectiveness. A proposal to group the membership of the Association for administrative purposes into divisions, was accordingly considered and after full discussion, the following motion was unanimously carried:

"That this meeting, having regard to the problem of increasing the membership of the Association, recommend to the Executive Committee the advisability of creating a Provincial organization, to be known as the 'Ontario Division' of the Association, to include present branches or subbranches in Toronto, Hamilton, Niagara Falls, and Brantford, and any additional branches which may subsequently be organized, to deal with matters having a Provincial application, leaving to the local organizations such matters as affect

them locally, and that the by-laws of the Association be amended and enlarged accordingly."

This resolution being approved by the Executive Committee, was submitted to the annual general meeting, held in Toronto in June last, and unanimously adopted, the membership of the Association being divided into five divisions; and by amendment of the Association by-laws then passed, members located within the Province of Ontario were created an Ontario Division of the Association, without, however, affecting the branch organizations as at present constituted.

Your Committee believe that the formation of branches in all the chief industrial centres will do much, not only to increase the membership of the Association, but also to stimulate thought on industrial matters.

All of which is respectfully submitted,

THOS. RODEN,
W. R. BREYFOGLE,
A. KINZINGER,
H. H. CHAMP,
H. W. FLEURY.

Toronto, October 16, 1919.

The Chairman then laid emphasis on the necessity of more intensive provincial organization for the purpose of dealing with purely provincial matters, such as Education, Workmen's Compensation, and Fire Prevention, which were largely administered under provincial law; also prospective legislation, such as Minimum Wage Law, Factory Legislation, etc.

On motion by Mr. Coulter, seconded by Mr. J. P. Murray, the report was unanimously received and adopted.

On motion by Mr. Coulter, seconded by Mr. J. P. Murray, the following resolution was submitted, and unanimously passed:

"Whereas by amendment of the Association by-laws passed at the last annual meeting, members in the Province of Ontario were created an Ontario Division of the Association (without affecting the branch organizations as heretofore constituted), to be operated under the said by-laws;

"Therefore, be it resolved, that a Division Executive Committee be and is hereby constituted, consisting of a Chairman, a Vice-Chairman and twenty elected members, together with the Chairman of each branch within the Province of Ontario, seven to constitute a quorum for meetings of such Executive Committee."

The Committee on Nominations having submitted a list of thirty-three nominees, Messrs. J. M. McIntosh and W. J. Larkin of the head office staff were appointed scrutineers.

The Chairman announced, upon a report by the scrutineers, that the following officers had been returned, and they were accordingly declared elected:

Chairman:

Douglas, Geo. H. ..... Thornton & Douglas, Ltd., Hamilton (by acclamation).

Vice-Chairman:

Shaw, J. R. ..... Canada Furniture Mfrs., Ltd., Woodstock (by acclamation).

Division Executive Committee (20):

Brigden, George ..... Brigdens, Ltd., Toronto.
Carlistle, C. H. ..... Goodyear Tire & Rubber Co., Ltd., Toronto.
Cockshutt, Gordon C... Slingsby Mfg. Co., Ltd., Brantford.
Cowan, W. ..... Cowan & Co., Ltd., Galt.
Dillon, T. J. ..... Canada Foundries & Forgings, Ltd., Welland.
Fleury, H. W. ..... J. Fleury's Sons, Aurora.
Freyseng, E. J. ..... Freyseng Cork Co., Ltd., Toronto.
Gray, Robert ..... Wm. Gray Sons Co., Ltd., Chatham.
Harris, Sam ..... Harris Lithographing Co., Ltd., Toronto.
Hatch, Fred ..... The Hatch Mfg. Co., Whitby.
Inglis, Wm. ..... John Inglis Co., Ltd., Toronto.
McGregor, G. M. ..... Ford Motor Co. of Canada, Ltd., Ford.
Millar, John ..... Lever Bros., Ltd., Toronto.
Monypenny, T. F. ..... Imperial Varnish & Color Co., Ltd., Toronto.
Paige, J. F. ..... Pt. Arthur Shipbuilding Co., Ltd., Pt. Arthur.
Roden, Thomas ..... Roden Bros., Ltd., Toronto.
Waddie, H. J. ..... Canadian Drawn Steel Co., Ltd., Hamilton.
Williams, Sam. J. .... The Williams, Greene & Rome Co., Ltd., Kitchener.
White, A. W. ..... The George White & Sons Co., Ltd., London.
Whitton, Frank ..... Steel Co. of Canada, Ltd., Hamilton.

Chairmen of Ontario Branches, Members Ex Officio:

Coulter, W. C. ..... Booth-Coulter Copper & Brass Co., Ltd., Toronto.
Douglas, Geo. H. ..... Thornton & Douglas, Ltd., Hamilton.
(Note.—Mr. Douglas is Division Chairman.)
Blew, E. R. ..... Spirella Co. of Canada, Ltd., Niagara Falls.
Waterous, C. H. ..... Waterous Engine Works Co., Ltd., Brantford.
(25 members.)

On motion by Mr. Douglas, seconded by Dr. D. Strachan, the following resolution was submitted and carried unanimously:

"That the Ontario Division Executive Committee be and is hereby authorized and empowered to elect committees as follows, that is to say:

(1) Educational Committee,
(2) Legislation Committee,
(3) Transportation and Power Committee,
(4) Publicity Committee.

"And such further or additional committees and sub-committees as it may deem proper or necessary with such powers, and consisting of such number respectively, as it may agree upon for the due and proper discharge of the business of the Division."'

Sir Henry Drayton, K.C., M.P., Minister of Finance, being introduced by the Chairman, addressed the manufacturers on the financial standing of Canada and invited their co-operation in completing the projected Government loan, which he characterized as essentially a war loan. He bore ready testimony to the devotion and patriotism of Canadian manufacturers and felt sure that their co-operation would be not less hearty than on all former occasions. In reply, Mr. Roden assured Sir Henry of the fullest support of the Association.

On motion by Mr. Frank H. Mutton, seconded by Dr. D. Strachan, the following resolution was submitted and carried unanimously:

"Whereas it is expedient that the Association should at once consider the organization of a permanent Department of Industrial Relations to study the relations existing between employers and employees, to gather data to supply industrial statistics and other information, and to be prepared to furnish expert advice and assistance in connection with any further Industrial Conferences or otherwise;

"Therefore, be it resolved, that the Ontario Division of the Canadian Manufacturers Association in general meeting assembled, recommend to the Executive Committee of the Association, that the Industrial Relations Committee be requested to report fully on the desirability of such an organization and outline a plan for its operation."

Mr. J. F. MacKay stated that the Publishing Committee of the Association, of which he is Chairman, would welcome any assistance from the Ontario Division. He also emphasized the value of publicity, urging that this matter should receive full consideration.

Mr. T. F. Monypenny suggested that the co-operation of Mr. J. F. MacKay and Mr. J. J. Gibbons should be enlisted in furtherance of a substantial publicity campaign. All rival interests were active in this respect—this Association alone excepted.

Mr. Douglas pointed out, however, that the operation of a Publicity Department required funds, and that the Executive must be careful not to conflict with the function of the Executive Council in its operation, but assured the meeting that the matter would receive full consideration.

Mr. Freyseng strongly urged the desirability of increasing the membership, and expressed the hope that there would be a large accession to the membership in the Ontario Division as the result of the new organization.

Mr. Roden then welcomed Mr. George H. Douglas to the Chairmanship of the Division for the ensuing year, who on taking the chair, was received with hearty applause. Mr. Douglas stated that he had just returned from taking part in a highly successful trip to the Eastern provinces, and that he had received ample evidence of the appreciation with

which all the Departments of the Association were regarded by members generally. The Ontario Division especially offered prospects of very great development. It was the chief centre of Canada's industries and might well be described as the banner Province of Canada. With such a representative and well-distributed Executive, he was quite sure that they were capable of performing excellent service to the manufacturers. He looked forward to the organization of branches in the chief centres, and whatever co-operation he and his Executive could give in this direction would be heartily at the command of all the members in their territory.

On motion by Mr. J. P. Murray, seconded by Mr. Parsons, a hearty vote of thanks was accorded to Mr. Roden for his valuable work as Chairman of the Organization Committee, leading up to this convention, and also for the active and intelligent interest he took in all matters affecting the welfare of the Association. Mr. Roden expressed his sincere thanks for this expression of appreciation of his co-members. Mr. G. H. Lees, at the same time, moved a hearty vote of thanks to the members of Toronto branch for their hospitality in entertaining the out-of-town members to luncheon.

At this stage, a telegram was read from President T. P. Howard, conveying congratulations to the Chairman of the Ontario Division, intimating the election of Mr. G. H. Duggan as Chairman, and Mr. C. Howard Smith as Vice-Chairman of Quebec Division. The Chairman intimated that he had also wired congratulations to Mr. Duggan on his election as Chairman of Quebec Division at its first organization meeting held in Montreal that day.

Mr. C. H. Carlisle, of the Goodyear Tire & Rubber Co., Limited, Chairman Industrial Relations Committee, delivered an interesting address in which he reminded the manufacturers that Socialism had been often tried in the United States and other countries, as well as in the British colonies, and had proved a failure. Referring to the question of publicity, Mr. Carlisle stated that the Association is behind every other organization in the city in this respect. One of the largest payers of taxes and reflecting the industrial life of the country—yet they have no adequate publicity! They had a great work in reaching the people of this country by well-directed publicity and inculcating the view that by production, fair-dealing and saving alone, could success be achieved. If this requires money, his advice was "Get it." It would be given and it would be a good investment. To such subjects as wise legislation, a system of scientific tariffs and discriminate consideration of the claims of labor, careful and systematic attention must be given. Only by letting people know what we are doing, could we hope to get a better co-operation.

Mr. J. S. McKinnon, 1st Vice-President, stated that much of the criticism to which they were subjected in the past was due to lack of knowledge of the aims and aspirations of the Association. What we want most of all is production, and it should be recognized and appreciated that an Association of business men, embracing from 3,000 to 4,000, devoting their time and brains to develop the industries of this country, was a very important factor towards present and future prosperity.

We are interested in the tariff because we are interested in Canadian industries. He hoped some good would come out of the National Industrial Conference recently held in Ottawa. It was not expected that a solution of all questions could be reached in one conference in the course of five days. Responsibility rested on labor equally with employers. The wheels of industry were being clogged by the uncertainty created in the various parts of the Dominion, owing to labor disputes, and the sooner all classes realized that only by whole-hearted co-operation and production could we finally win, the better for the country.

Ex-President S. R. Parsons spoke on the statesmanship-like conclusions being reached by the present Industrial Relations Committee sitting at Washington. When all classes looked to the public welfare rather than to selfish interests, then would the country assuredly reach the goal of prosperity.



Mr. G. H. Douglas

Well-known Hamilton Manufacturer who was honored with election to the chairmanship of the new Ontario Division, C.M.A.

The Secretary announced that the National Conference on Character Education in relation to Canadian citizenship, would be held in Winnipeg from October 20th to 22nd and members of the Association were invited. Mr. W. J. Bulman, Ex-President of the Association, it was explained, was the originator of the Conference which was certain of a large attendance.

The Ontario Division Executive Committee met immediately after the Organization meeting.

Present—Messrs. Geo. H. Douglas (Chairman), Thos. Roden, W. C. Coulter, T. F. Monypenny, Ed. J. Freyseng, and Sam. J. Williams.

Mr. H. Macdonald, Legal Secretary of the Association is also Secretary of the Ontario Division.

The meeting discussed the appointment of sub-committees and questions of general policy.

Mr. C. H. Carlisle of the Goodyear Tire & Rubber Co., Limited, was appointed a member of our "Committee of Approval" of the Hydro-Electric Power Commission, to deal with the question of approval of electrical fittings, fixtures, devices, etc., as representing consumers.

The following members from outside Toronto were present at the meeting:

Bertram, Henry	John Bertram & Sons Co., Ltd., Dundas.
Breyfogle, W. R.	The De Laval Co., Ltd., Peterboro.
Douglas, G. H.	Thornton & Douglas Co., Ltd., Hamilton.
G. T. Dunn	Canadian Steel & Wire Co., Ltd., Hamilton.
Gain, J. H.	Brantford Roofing Co., Ltd., Brantford.
Gernandt, F. J.	International Harvester Co., Hamilton.
Gormely, F. P.	Union Carbide Co. of Canada, Welland.
Harmer, R.	Sawyer-Massey Co., Ltd., Hamilton.
Hatch, F.	The Hatch Mfg. Co., Ltd., Whitby.
Hatt, H. L.	Welland Machine & Foundries, Welland.
Hodgins, F. S.	Williams, Greene & Rome Co., Kitchener.
Lees, Geo. H.	Geo. H. Lees & Co., Ltd., Hamilton.
Lees, W. W.	Geo. H. Lees & Co., Ltd., Hamilton.
Lovejoy, F. C.	Cross Press & Sign Co., Woodstock.
McCormick, B. J.	Canada Foundries & Forgings, Welland.
McCredie, A. L.	A. L. McCredie, Ltd., St. Marys.
Notman, J. C.	McKinnon Dash Co., St. Catharines.
Piper, J. C.	Robert H. Hassler, Ltd., Hamilton.
Ritchie, C. N.	Ritchie Cut Stone Co., Ltd., Hamilton.
Schultz, W. D.	Schultz Bros. Co., Ltd., Brantford.
Westbye, P. B.	Wm. Hamilton Co., Ltd., Peterboro.
Williams, S. J.	Williams, Greene & Rome Co., Kitchener.
Waterman, H. E.	Secretary, Hamilton Branch, Hamilton.

Statement of Principles by U.S. Employers

As Submitted to the Industrial Conference at Washington, D.C.

President Wilson of the United States summoned a National Industrial Conference to meet at Washington, D.C., on October 6th, 1919. The Conference was divided into three groups, one representing employers, one labor and one the public. This Conference was conducted along different lines to that of the National Industrial Conference held in Ottawa, September 15th to September 20th. The Canadian Conference was more in the nature of a small parliament called together to discuss certain industrial subjects. The United States Conference appears to have been a conference consisting of a small group from each of the three interests involved, who were summoned into personal conference with the President. This arrangement, owing to the President's illness, was changed to some extent. The subjects under discussion, however, were very similar. The Employers' Group, consisting of the representatives of the Chamber of Commerce of the United States, the Investment Bankers' Association, the Railroad Executives, the National Grange, the American Society of Equity, the Farmers' Co-operative Union and the National Industrial Conference Board, prepared and presented a statement of principles which they submitted should govern the employment relation in industry. This statement of principles was as follows:

SOUND industrial development must have as its foundation productive efficiency, and high productive efficiency requires not only energy, loyalty, and intelligence on the part of management and men, but sincere co-operation in the employment relation, based upon mutual confidence and sympathy.

This is true of all producing industries, large and small, of the farming industry as well as the manufacturing. While there are differences between the different branches of industry which call for special application of the underlying principles, these principles are the same in all.

Without efficiency in production, that is to say, without a large product economically produced, there will be no fund for the payment of adequate compensation for labor, management and capital, and high cost of living will inevitably continue. Moreover, without such efficiency it will be impossible for American industry successfully to compete in foreign markets or with competition in this country. The larger and more effective the production, the greater will be the return to all engaged in the industry and the lower the cost of living.

The requisite efficiency in production cannot be secured unless there is effective co-operation between employer and employee, such as is only possible where, with a full understanding of each other's point of view, management and men meet upon a common ground of principle and in a spirit of co-operation based upon good understanding and a recognition of what is fair and right between the two. Then only can there be that harmony which will insure the prosperity of those engaged in industry and of all the people.

With full recognition of the vital importance of these conditions, and with due realization of the great responsibility resting upon management to secure their practical application in industrial affairs, we submit the following principles which we regard as fundamentally sound in the interest of industry, of those employed or concerned in industry, and of the people as a whole.

1. *Production.*—The industrial organization as a productive agency is an association of management, capital, and labor voluntarily established for economic production through co-operative effort. It is the function of management to co-ordinate and direct capital and labor for the joint benefit of all parties concerned and in the interest of the consumer and of the community. No employment relation can be satisfactory or fulfil its functions for the common good which does not encourage and require management and men to recognize a joint as well as an individual obligation to improve and increase the quantity of production to as great an extent as possible, consistent with the health and well-being of the workers.

There should be no intentional restriction of productive effort or output by either the employer or the employee to create an artificial scarcity of the product of labor in order to increase prices or wages; nor should there be any waste of the productive capacity of industry through the employment of unnecessary labor or inefficient management.

It is the duty of management on the farms and in industry and commerce, as far as possible, to procure the capital necessary for the increased production that is required, and of both management and labor to co-operate to promote the use of capital in the most efficient fashion.

2. *The Establishment as a Productive Unit.* — Recognizing the co-operative relationship between management and men essential to productive efficiency as a prerequisite for national and individual well-being, the establishment rather than the industry as a whole or any branch of it should, as far as practicable, be considered as the unit of production and of mutual interest on the part of employer and employee. Here, by experimentation and adaptation, should be worked out and set up satisfactory means for co-operative relations in the operation of the establishment, with due regard to local factors.

Each establishment should develop contact and full opportunity for interchange of view between management and



—"American Industries"

The Up-to-date Engine Room

men, through individual or collective dealing, or a combination of both, or by some other effective method, always predicated on both sides on honesty of purpose, fairness of attitude, and due recognition of the joint interest and obligation in the common enterprise in which they are engaged.

Mere machiney is not enough for this purpose. There must also be sympathy and good will, with earnest intent that, whatever the means employed, they must be effective.

Safe and Satisfactory Conditions

3. *Conditions of Work.*—It is the duty of management to make certain that the conditions under which work is carried on are as safe and as satisfactory to the workers as the nature of the business reasonably permits. Every effort should be made to maintain steady employment of the workers both on their account and to increase efficiency. Each establishment should study carefully the causes of unemployment, and individually and in co-operation with other establishments in the same and other industries should endeavor to determine and to maintain conditions and business methods which will result in the greatest possible stability in the employment relation.

4. *Wages.*—While the law of supply and demand must inevitably play a large part in determining the wages in any industry or in any establishment at any particular time, other conditions must be taken into account such as the efficiency of the worker, and the wage standard of the industry in the locality. The wage should be so adjusted as to promote the maximum incentive consistent with health and well-being and the full exercise of individual skill and effort. Moreover, the business in each establishment and generally in industry should be so conducted that the worker should receive a wage sufficient to maintain him and his family at a standard of living that should be satisfactory to a right-minded man in view of the prevailing cost of living, which should fairly recognize the quantity and quality of his productive effort and the value and length of his service, and reflect a participation on his part in the prosperity of the enterprise to which he is devoting his energy.

Many plans are now under consideration for adding to the fixed wage of the worker, such, for example, as bonus payments, profit-sharing, and stock ownership. All such plans should be carefully studied in each establishment. It may well be that in many instances the employer and the employee could work out an arrangement of such a character to their mutual advantage.

Employment Suited to Ability

In order that the worker may in his own and the general interest develop his full earning capacity and command his maximum wage, it should be a primary concern of management to assist him to secure employment suited to his abilities, to furnish him incentive and opportunity for improvement, to provide proper safeguards for his health and safety, and to aid him to increase the value of his productive effort.

Where women are doing work equal with that of men under the same conditions, they should receive the same rate of pay as men, and should be accorded the same opportunities for training and advancement.

5. *Hours of Work.*—Hours of work schedules should be fixed and his right to an adequate period of leisure for rest, recreation, home life, and self-development. To the extent that the work schedule is shortened beyond this point the worker as well as the community must inevitably pay in the form of a reduced standard of living.

The standard of the work schedule should be the week, varying as the peculiar requirements of individual industries may demand. Overtime work should, as far as possible, be avoided, and one day of rest in seven should be provided.

6. *Settlement of Disputes.*—Each establishment should provide adequate means for the discussion of all questions and the just and prompt settlement of all disputes that arise between management and men in the course of industrial operation, but there should be no improper limitation or impairment of the exercise by management of its essential function of judgment and direction.

7. *Right to Associate.*—All men have the right to associate voluntarily for the accomplishment of lawful purposes by lawful means. The association of men, whether of employers, employees, or others, for collective action or dealing confers no authority and involves no right of compulsion over those who do not desire to act or deal with them as an association. The arbitrary use of such collective power to coerce or control others without their consent is an infringement of personal liberty and a menace to the institutions of a free people.

8. *Responsibility of Associations.*—The public safety requires that there shall be no exercise of power without corresponding responsibility. Every association, whether of employers or employees, must be equally subject to public authority and legally answerable for its own conduct or that of its agents.

Principle of Individual Freedom

9. *Freedom of Contract.*—With the right to associate recognized, the fundamental principle of individual freedom demands that every person must be free to engage in any lawful occupation or enter into any lawful contract as an employer or an employee, and be secure in the continuity and rewards of his effort. The freedom of a man to work is as sacred as is his freedom to religious worship and must not be subject to restriction or menace.

The only qualification to which such liberty of contract is subject lies in the power of the state, within limits imposed by the Constitution, to regulate in the public interest, for example, for the promotion of health, safety, and morals.

10. *The Open Shop.*—The principles of individual liberty and freedom of contract upon which our institutions are fundamentally based require that there should be no interference with the "open shop," that is, the shop in which membership or non-membership in any association is not made a condition of employment. While fair argument and persuasion are permissible, coercive methods aimed at turning the "open shop" into a "closed union" or "closed non-union shop" should not be tolerated.

There should be no denial of the right of an employer and his workers voluntarily to agree that their relation shall be that of the "closed union shop" or of the "closed non-union shop." But the right of the employer and his men to continue their relations on the principle of the "open shop" should not be denied or questioned. No employer should be required to deal with men or groups of men who are not his employees or chosen by and from among them.

Under the organization of the "open shop" there is not the same opportunity for outside interference on the part of other interests to prevent close and harmonious relations between employer and employee. Their efforts to continue or secure such harmonious relationship are not complicated to the same extent by intervention of an outside interest which may have aspirations and plans of its own to promote, which are not necessarily consistent with good relations in the shop.

11. *The Right to Strike or Lockout.*—In the statement of the principle that should govern as to right to strike or lock-

(Continued on page 142)

Extent and Scope of the C.M.A. Organization

Illustrated by a Series of Twenty-Five Views

FOR the benefit of the many members of the Canadian Manufacturers' Association who have been unable for various reasons to familiarize themselves personally with the appearance and work of the several offices and departments of the Association, a series of photographs has recently been taken illustrating the extent of the organization. These photographs appear on the following pages. They will undoubtedly be found impressive by reason of the manner in which they portray the widespread activities of the C.M.A. and the varied services rendered by this great national Association.

Since similar illustrations were published five years ago, there have been notable developments in the organization. At that time the membership was 3,100; it is now 3,615. There were then exclusive of the Insurance Department, 25 persons on the pay-roll, giving their entire time to the work; there are now 40 persons similarly employed. With the exception of the Montreal office, the various branch offices now located in Montreal, Winnipeg, Vancouver, Amherst and Ottawa had not yet been organized on their present comprehensive basis nor had the formation of provincial divisions even been contemplated. The facilities provided and services rendered were in practically every respect inferior to those of the present day.

The Association is on the eve of further intensive organization. With the formation in October of the Ontario and Quebec Divisions, each with its own chairman, vice-chairman, executive committee and special committees, the task of organizing the Association by provinces has been completed. There now exists the Pacific Division, comprising the province of British Columbia; the Prairie Division, taking in the provinces of Alberta, Saskatchewan and Manitoba; the Ontario and Quebec Divisions, covering these two provinces respectively and the Maritime Division, extending over the provinces of New Brunswick, Nova Scotia and Prince Edward Island.

It remains to round out the work by forming branches in all the important industrial centres where such branches do not now exist. A good start has been made but much remains to be done. The following cities have already been organized---in the Pacific Division, Vancouver and Victoria; in the Prairie Division, Winnipeg, Brandon, Regina, Medicine Hat, Saskatoon, Calgary and Edmonton; in the Ontario Division, Toronto, Hamilton, Brantford and Niagara Falls; in the Quebec Division, Montreal, Quebec and Sherbrooke. There are no branches so far in the Maritime Provinces, though several will likely be formed in the near future.

THE GENERAL MANAGER



MR. J. E. WALSH AT HIS DESK

THE senior officer of the Association's salaried staff, under whose direction all other paid officers carry on their work, bears the title of General Manager. His duties, as defined by the constitution, require him to keep a correct list of the members and their addresses and a true and accurate record of all proceedings. He is required to conduct the correspondence of the Association and collect and carefully preserve all books, papers, letters and documents relating to or of interest to the Association. To him is entrusted the custody of the seal of the Association, and it is incumbent on him to perform all duties which the nature of his office may require or the Executive Committee may order.

Since its creation at the first of the present year, the office of General Manager has been held by Mr. J. E. Walsh, who was formerly manager of the Association's Transportation Department. Mr. Walsh commenced his business career with the Canada Atlantic Railway and remained in the service of that road for twenty years, passing through all departments. Then he served for a time as assistant to the general manager of the Richelieu & Ontario Navigation Company, obtaining experience in the field of water transportation. On leaving the R. & O. he was engaged by the Federal Government on the Georgian Bay survey. Finally his connection with the C.M.A. began in 1907, when he was invited to take charge of the newly-created Transportation Department. His work in this connection is too well known to the members to require any elaboration. He has made the department of great service to the membership and has demonstrated the advantage of having available the services of an expert. Mr. Walsh, in addition to his other duties as General Manager, continues to supervise personally the work of the Transportation Department.

THE GENERAL SECRETARY



MR. J. T. STIRRETT

ON the institution of the office of General Manager, a new position was created, to which was given the name of General Secretary. The duties of this office embrace the oversight and correlation of all the secretarial work of the Association divisions, its branches and committees, The position is held by Mr. J. T. Stirrett. Mr. Stirrett is a graduate in Arts of the University of Toronto. After completing his college course he spent three and a half years in daily newspaper work, which included one session in the Press Gallery of the House of Commons. In 1912 he joined the staff of the Association as editor of INDUSTRIAL CANADA. He enlisted in the Canadian Expeditionary Force in November, 1915, and, after going through the usual course of training in Canada and England, served one year in France. He was discharged on demobilization in January, 1919. After receiving his discharge he resumed his duties on the staff of the Association, and following the reorganizaton of the office staff which took place at that time, was appointed to his present position as General Secretary at the head office.

THE TARIFF DEPARTMENT



MR. J. R. K. BRISTOL, MANAGER

THIS photograph shows the office of the Manager of the Tariff Department, Mr. J. R. K. Bristol. This Department can be of great service to members in handling the many difficult and complicated problems arising in connection with the Tariff. The Manager is in a position to assist with all questions connected with departmental rulings, decisions of the Board of Customs, orders-in-council entries, post entries, dump duties, refund, drawbacks, seizures, etc. Mr. Bristol has had life-long experience in tariff matters, having been twenty-three years in the Customs Service at Ottawa before becoming Manager of the Tariff Department in 1912. He acted as private Secretary to Hon. N. Clark Wallace and Hon. John F. Woods, comptrollers of customs, was later member of the Board of Customs, has served as an Inspector of Customs, as Chief Dominion Appraiser and as member of the Statistical Commission which classified the statistics issued by the Dominion Government. His exceptional qualifications for his work in the Association are too apparent to call for explanation.

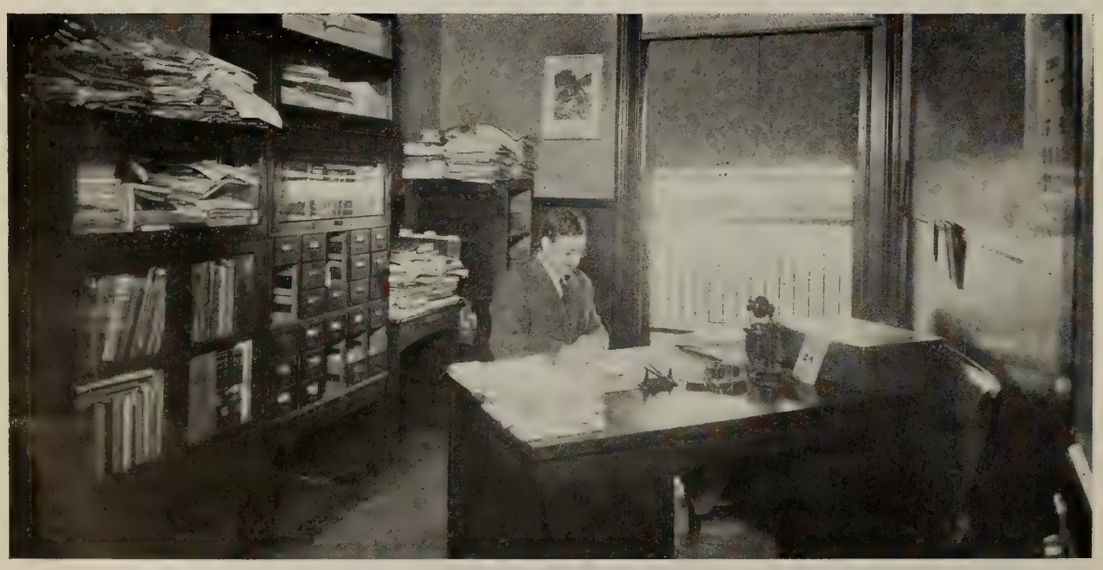
THE LEGAL DEPARTMENT



MR. H. MACDONALD, SECRETARY

THE Association's Legal Department performs numerous useful functions. It makes a careful study of all legislation passing through the Dominion and Provincial Parliaments, and where necessary advises action in the interests of manufacturers. It is always available for consultation on any legal point and its services are at the disposal of members for advice on company law, the incorporation of companies, and all matters affecting the transaction of business. The Secretary of the Department is Mr. H. Macdonald, whose legal training was obtained in the Universities of Aberdeen and Edinburgh. After practising for some years in Edinburgh, Mr. Macdonald came out to Canada, and for a time practised law in Toronto. He joined the C.M.A. as assistant general secretary in 1915, and for a time acted as general secretary during the absence of Mr. Murray.

THE COMMERCIAL INTELLIGENCE DEPARTMENT



MR. ALEX. MARSHALL, MANAGER

A DEPARTMENT of the Association's work which has been increasing very noticeably in importance during the past few years is that devoted to the compilation and dissemination of Commercial Intelligence. This Department had its nucleus in the CANADIAN TRADE INDEX, a volume published by the Association every two or three years and containing a classified list of all articles manufactured in Canada. In addition to the important task of preparing the INDEX, the Department provides a storehouse of information on many phases of the industrial life of the country and is particularly well posted on problems of export trade. Its services are at the disposal of members whenever trade questions are under consideration. The Department is managed by Mr. Alexander Marshall, a graduate of the University of Toronto, who has been engaged in this work since 1912.

INDUSTRIAL CANADA DEPARTMENT



MR. D. B. GILLIES, BUSINESS MANAGER; MR. W. A. CRAICK, EDITOR

AS the medium through which the policies of the Association are advocated, its work made known to the membership and the industrial progress of the country recorded, INDUSTRIAL CANADA plays an important part in the work of the organization. There is here shown the joint office of the business manager and the editor. Mr. D. B. Gillies, the business manager, is a graduate of the University of Toronto, who has had lengthy experience in the publishing field, first in daily newspaper work, then with magazine and specialized class publications. Mr. W. A. Craick, the editor, also a graduate of the University of Toronto, has had many years' experience in journalism, both as a writer of special articles and in the editing of magazines and class publications.

THE ACCOUNTING DEPARTMENT



MR. JOSEPH WINFIELD, OFFICE MANAGER

IN a big organization like that of the C. M. A., the accounting department naturally occupies an important place. The task of collecting the fees and handling the accounts for an institution of such proportions is no small one. The man in charge of this work and who, in addition, acts as office manager, is Mr. J. W. Winfield. Mr. Winfield enjoys the distinction of being the oldest employee of the Association in point of service. He joined the staff in 1900 as office boy, and in the interval has risen to his present responsible position. Besides keeping the accounts, Mr. Winfield looks after the membership roll and performs various other necessary duties in the organization.

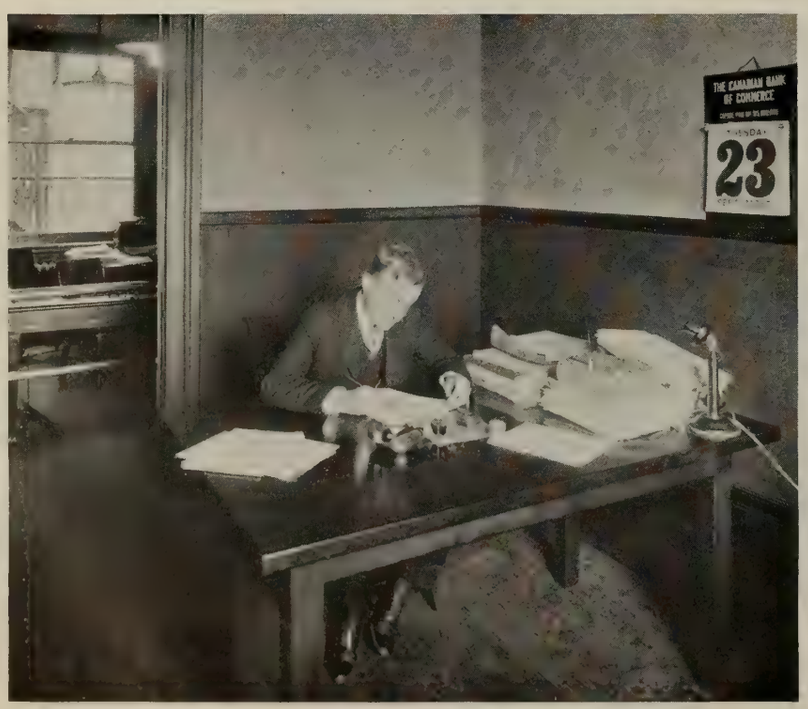
THE TRANSPORTATION DEPARTMENT



MR. S. B. BROWN, ASSISTANT MANAGER

THIS is the department which deals with the transportation problems of the manufacturers of Canada. Freight and express rates, bills of lading, demurrage and other rules, freight classification and conditions of carriage, minimum carload weights, siding agreements, telegraph forms and many other matters are constantly arising and calling for attention. As the adjustment of such problems is extremely technical, the work of the department is entrusted to recognized experts. Mr. J. E. Walsh, though now general manager of all departments, still holds the position of manager of this particular department, giving members the benefit of his long experience in transportation matters. The bulk of the work, however, falls on the shoulders of Mr. S. B. Brown, the assistant manager, and his staff, now numbering five persons. Mr. Brown entered the service of the Association in 1912 as assistant to Mr. Walsh, becoming assistant manager of the department when the latter became general manager. Prior to joining the Association, he had eight years of valuable experience first in Ottawa in the local freight and freight traffic departments of the Ottawa and New York Railway and later in New York in the freight traffic department of the New York Central & Hudson River Railway.

The work of the department comes under the direction of the Transportation Committee of the Association, which is empowered to give attention to all matters affecting transportation and communication which may from time to time become of importance to the trade and commerce of Canada. Especially is it required to protect the interests of members in regard to the classifications and tariffs of freight and conditions, contracts, practices and regulations under which freight is weighed, handled, moved, stored, loaded and unloaded.



MR. G. P. RUICKBIE, TRAFFIC REPRESENTATIVE

One of the important duties performed by officers of the department is to represent the interests of manufacturers before the Dominion Board of Railway Commissioners and other bodies concerned with transportation matters. Both Mr. Walsh and Mr. Brown frequently appear before these boards, and in the past have achieved valuable results for the membership.

In the lower illustration is shown the office of Mr. Ruickbie, who is the traffic representative of the Canadian Pulp & Paper Association and works in close conjunction with the Transportation Department of the C.M.A. Mr. Ruickbie was appointed to this office in 1919, after twenty years in the service of the freight department of the C.P.R.

THE TRADE SECTIONS DEPARTMENT

THE Trade Sections Department stands ready to supply a secretarial and organizing service to any group of manufacturers who may desire to organize along lines of production for the purpose of dealing with common problems incidental to the trade. All that is required to start the ball rolling is the indication of a motive incidental to a particular trade upon which united action may be considered desirable. If members report such matters to the Department, meetings will be speedily arranged in any of the cities in which the Association maintains a staff. The manager of this Department is Mr. J. M. McIntosh, who was for several years prior to the war secretary of the Toronto Branch, and who on his return from active service was appointed to his present position. Prior to entering the employ of the Association Mr. McIntosh was engaged in banking. He entered that business early in life and rose through the various departments to the managership of the Dominion Bank at Brandon, Man., where he was stationed for five years. He also saw considerable service in Winnipeg and Toronto, spending nineteen years in all in banking.



MR. J. M. McINTOSH, MANAGER

The lower illustration shows a section of the general office, with the library in the background. In the foreground is seated Mr. F. R. Allward, chief clerk of the Transportation Department. Mr. W. J. Larkin, filing and tariff clerk of the same department, stands at the filing cabinet, and seated in the background is Mr. T. M. Kerruish, assistant to the manager of the Commercial Intelligence Department. Mr. Kerruish saw active service with the Royal Air Force. In the library are filed government reports, reference books of all sorts, text books bearing on economics, magazines, newspapers, trade and class publications.



SECTION OF GENERAL OFFICE

It may be interesting to note that the space shown in this picture comprised practically the whole of the general office in 1914 and, in fact, was so occupied up to two years ago, when the business of the Association grew to such proportions that the space shown on the following page had to be taken in to provide necessary additional room. As it is, the Association to-day occupies all but a small corner of the entire fourteenth flour of the Bank of Hamilton Building (formerly the Traders Bank Building), the private offices extending along the south side of the building and the general offices, board room and insurance department, the rest of the space. All the office equipment in the way of desks, typewriters, filing cabinets and other apparatus are of the most modern and efficient design and each private office has its own telephone.

THE INSURANCE DEPARTMENT



GENERAL OFFICE OF THE INSURANCE DEPARTMENT

BY arrangement with the insurance firm of Willis, Faber & Co., members of the Association are entitled to receive expert advice on all matters pertaining to insurance as part of their Association privileges. One of the three offices occupied by this firm is shown in the illustration, the manager, Mr. Slater, being seen standing in the background. These offices form part of the head office suite of the C.M.A. and are in effect a department of the organization. Quite a large staff of assistants and stenographers are employed.

THE GENERAL OFFICES



SECTION OF GENERAL OFFICE IN TORONTO

STENOGRAPHIC work in connection with an office like that of the Canadian Manufacturers' Association is no light task, and, to handle the correspondence and other work passing through the office, quite a large staff of stenographers is required. The illustration takes in one section of the general office, with Miss Woodcock, the chief stenographer, in the foreground. About twelve capable young ladies are employed in this work in the head office, each department having one or more stenographers specially employed in its work.

THE PRAIRIE DIVISION



MR. G. E. CARPENTER, SECRETARY, WINNIPEG

IN Winnipeg are located the headquarters of the Prairie Division, taking in the provinces of Manitoba, Saskatchewan and Alberta. This office is in charge of Mr. G. E. Carpenter. Mr. Carpenter started work in 1892 as call boy with the Grand Trunk at Stratford, Ont. After experience in freight work in Stratford, Toronto, Hamilton and Winnipeg, he was appointed in 1906 traffic manager for the Winnipeg Shippers' and Jobbers' Association, which later merged with the Board of Trade. He joined the C.M.A. in 1915.

THE MARITIME DIVISION



MR. H. R. THOMPSON, SECRETARY, AMHERST, N.S.

THE work of the Association in the Maritime Provinces centres in Amherst, N.S., where the head office of the divisional secretary, Mr. H. R. Thompson, is located. Mr. Thompson's experience, prior to accepting his present position in 1916, was largely in manufacturing. He was born in Sussex, N.B., but moved to Amherst as a boy, becoming messenger at the plant of the Rhodes, Curry Co., Limited, later the Amherst works of the Canadian Car & Foundry Co., Limited. He was with these companies for 14 years, in various capacities.

THE QUEBEC DIVISION



MR. W. P. HUGHES, SECRETARY, MONTREAL

IN Montreal, the Association occupies a suite of offices in the Board of Trade Building, and these are the headquarters of the newly-formed Quebec Division and the Montreal Branch. The secretary in charge is Mr. W. P. Hughes, whose private office is herewith illustrated. Mr. Hughes was born in Arnprior, Ont., in 1888, the son of the Rev. S. J. Hughes, M.A. He attended Athens High School and McGill University, graduating in Arts in 1912. For two years he acted as assistant sporting editor of the *Montreal Daily Mail*, and in 1916-17 taught English and History in Westmount High School. He became acting secretary, Montreal Branch, C.M.A., in March, 1917, and secretary in July, 1917. Last year he took his B.C.L. degree from McGill. During his college career Mr. Hughes took a prominent part in athletics, being a member of the Intercollegiate championship football and hockey teams. Under his guidance the work of the Association in Montreal, and Quebec Province, has been progressing most satisfactorily. Standing beside Mr. Hughes is Mr. E. J. Davis, manager Montreal Branch, Graphic Arts Section.

THE PACIFIC DIVISION



MR. H. DALTON, SECRETARY, VANCOUVER

PICTURED in this illustration is the private office of Mr. Hugh Dalton, Secretary of the Pacific Division, in Vancouver, B.C. Mr. Dalton has been in charge of the Association's work in British Columbia since 1917. He received his business training with the Canadian Pacific Railway Company, having been in the employ of that corporation in different departments in Winnipeg, Calgary and Vancouver, from 1900 to 1909. Between 1909 and the time he entered the service of the C.M.A., Mr. Dalton was in charge of the transportation, stores and purchasing departments of the Western Canada Power Co., in Vancouver.

THE MONTREAL OFFICE

THE Montreal offices comprise four rooms, consisting of a committee and consulting room, board room, general office and the secretary's private office. The plant is well adapted for Association purposes, as is evidenced by the large number of group meetings which are held each month by branch members. Complete tariff files, applying between the Branch territory and all points in Canada are kept in the office for the use of Branch members. Customs rulings and memoranda and other information are collected and made constant use of. During the past twelve months the office has been particularly active in disseminating commercial intelligence. In the accompanying illustration is shown the general office, with Mr. Hughes' assistant, Miss Emma T. Gauvreau, at her typewriter. Miss Gauvreau has been in the employ of the Association since 1907, during which time the personnel of the secretaryship has changed four times. The Montreal offices of the Association are located in the Board of Trade Building, which stands in a central position in the business district of the city.



GENERAL OFFICE, MONTREAL

THE VANCOUVER OFFICE



SECTION OF GENERAL OFFICE, VANCOUVER

A VERY prominent part of the work done in the Vancouver office of the Association has been in connection with the building up of export trade through the port of Vancouver and in placing British Columbia manufacturers in touch with this business. Apart from the usual services rendered to members, it has been the special aim of this office to co-operate with all local organizations in furthering British Columbia's industrial interests, as well as those of Canada as a whole. The illustration shows a corner of the general office.

THE ASSOCIATION'S BOARD ROOMS



HEAD OFFICE BOARD ROOM, TORONTO

COMMITTEE work forms a very important part of the Association's activities, and each office contains suitable provision for the holding of committee meetings or meetings of groups of manufacturers. In this illustration is shown the large board room in the Toronto office, where many important meetings, from those of the Executive Council down, are held each month. On its walls hang a series of portraits of past presidents.



BOARD ROOM, WINNIPEG OFFICE

THE extent of the work undertaken in the Winnipeg office is indicated by this view of the Winnipeg board room. This apartment is capable of accommodating fifty people, and is available for, and is used by, members in different lines of business, for conferences. It is a commodious and well-lighted room and is decorated with portraits of officers of the Association. The Winnipeg office is located in the Northern Crown Bank Building.

THE ASSOCIATION'S BOARD ROOMS



COMMITTEE ROOM, MONTREAL OFFICE

IN this photograph there is shown the committee room in connection with the Montreal office. This room is not only utilized, when needed, for committee meetings, but serves as a consulting office when the heads of the Transportation and Tariff Departments visit Montreal to give members there the benefit of their advice and other services. It is furnished with desk and telephone for the use of members or visiting officials, besides other equipment.



BOARD ROOM, MONTREAL OFFICE

THE board room itself in the Montreal office, as illustrated in this picture, is a pleasant, well-furnished room, with adequate provision for the holding of any committee or other meetings that may be required. Branch members make good use of the equipment provided by the office as evidenced by the number of meetings that are held, scarcely a day passing without one or more gatherings taking place.

THE OTTAWA OFFICE



MR. E. BLAKE ROBERTSON



THE BOARD ROOM

IN 1918 the Association opened an office in Ottawa for the purpose of assisting members of the Association in dealings which they may have with the Government or Government departments, and also of holding a watching brief over Dominion legislation affecting, in a business way, members of the Association. Mr. G. M. Murray, formerly general secretary, was named Ottawa representative, while in January last, Mr. E. Blake Robertson was placed in charge of the office. Mr. Robertson was formerly assistant superintendent of immigration, holding that office from 1904 to 1911, and then assistant controller of Chinese Immigration from 1911 to 1919. The illustrations show Mr. Robertson's private office and the board room. The Ottawa offices are located in the Booth Building.

THE HAMILTON BRANCH



MR. H. E. WATERMAN. SECRETARY

IN Hamilton, the Association occupies an office jointly with the Hamilton Harbour Commissioners, Mr. H. E. Waterman being secretary both of the Harbour Board and of the Hamilton Branch, C.M.A. This office is located at 65½ James Street South. Mr. Waterman has always been connected with freight and transportation work, having started with the Grand Trunk Railway and later joining the Traffic Department of the International Harvester Co. of Canada, when that company located in Hamilton. In 1912, he accepted the secretaryship of the Harbour Commission, and in 1913 assumed the duties of secretary of the Hamilton Branch, C.M.A.

Canada's Industrial Expansion

A Record of Progress

INDUSTRIALLY, Canada is not marking time. From all parts of the country come intimations that manufacturing capacity is on the increase. Here a new plant is being established; there an existing factory is being enlarged. Taken in the aggregate these new developments constitute an imposing total---a total that inspires confidence in the industrial future of the Dominion. In the following pages some of the more important developments of the day are described in greater or less detail with a series of interesting illustrations.

New Undertaking for Canada

Manufacture of Paper Mill Machinery on Large Scale to be Embarked Upon by Montreal Company

No small importance attaches to the announcement made recently that the Dominion Bridge Company, Limited, were about to enter upon the manufacture of paper mill machinery on a large scale. Orders placed with them by the Laurentide Company, Howard Smith Paper Mills and Interlake Tissue Mills for immense paper machines have determined them to extend their organization and equipment and embark seriously in this important business.

During the war the Dominion Bridge Company developed a large machinery capacity in the manufacture of munitions, marine engines and equipment. After the cessation of war work they have been endeavoring to use their equipment and organization on the higher grades of machine shop products, including steam turbines, of which they have shipped a number, and paper making machinery. Up to the present the latter line has only been regarded as an incident, but the big orders recently taken, which will occupy their present capacity for a considerable time, have led to a change of ideas which will involve pretty extensive additions to both plant and organization. However, plans for enlargement are not yet quite matured.

Acquires Huge Plant

Columbia Graphophone Company Gets Possession of Factory of Canadian Aeroplanes Limited

Engineers of the Columbia Graphaphone Company are now at work preparing plans for the re-arrangement of the big plant of Canadian Aeroplanes, Limited, on Dufferin Street, Toronto, recently acquired by them to accommodate their growing business in Canada and the export market. The plant, which was erected in 1917, consists of eight permanent buildings occupying twelve acres of ground. The exterior walls of the buildings are of steel, faced with red pressed brick. All the windows have steel sash and the buildings are protected by automatic sprinkler systems, fire signal systems, etc. The largest structure, formerly the fusilage building, is 680 feet long, with 42,570 feet of floor space. The next largest building, formerly the mill building, is 420 feet long, with 39,180 feet floor space. Between them is the wing-building, 580 feet long, with 35,200 feet floor space. At the east end of the property is a two-storey building containing 44,360 square feet of space and a storage building with 27,600 square feet. The former propeller building has an area of 18,880 square feet. In addition there is boiler house and kilns, garage, repair shop, lumber shed, time office, etc.

It is the intention of the Columbia Graphophone Co. to utilize this whole plant in the manufacture of Columbia Grafonolas and records. This will give them a greatly enlarged output and will enable them to go in on a big scale for export trade. About 2,000 hands will be employed, and the Company will make a portion at least of the cabinets for the grafonolas. The capacity in records will be increased 500 per cent., and in grafonolas 400 per cent. It is understood to be the intention of the company to form a Canadian corporation.

Start on Developments

International Paper Company Proceeds with First Unit of Its Canadian Programme

The International Paper Co. of New York have started the construction of a 50-ton sulphite pulp mill at Three Rivers. Work was begun on August 28 and as of November 1 the foundations were all in, 25 per cent. of the brick work was finished and 25 per cent. of the steel erected. The company hope to have the mill in operation by next September. As soon as the power is ready they expect to proceed with the erection of a 160-ton groundwood mill and a 200-ton paper mill, which they hope to have ready for production by September 1, 1921.

A long-term contract for power has been made by the International Paper Company with the Shawinigan Water & Power Co. At the outset some 20,000 horse-power is to be supplied, but as the plant is enlarged from time to time additional energy will be taken. After a thorough survey of the power situation, the executive of the International Co. decided that it would be more advantageous to enter into a long-term arrangement with the Shawinigan Co. than to develop their own powers.

To Make Clocks in Canada

Western Clock Company, an American Industry, is Locating a Canadian Plant in Peterboro'

An interesting newcomer among American branch plants locating in Canada is the Western Clock Company, whose home industry is located in La Salle, Ill. This company have selected Peterboro' as the scene of their Canadian operations. They have acquired the building on George Street



Where Motors and Transmissions will be made

Two up-to-the-minute plants of Canadian Products, Limited, Walkerville, now nearing completion

South up to the present owned and occupied by the Canadian Chicle Company and will secure possession about the end of the year. In the meantime they have rented space in the Barrie Building and have started operations. The Chicle Company's building into which they will move as soon as possible is 80 x 33 feet in size with three storeys and basement. It is their intention to build up their organization as rapidly as possible and within a year they hope to be giving employment to about 200 hands.

Walkerville Plants Near Completion

Two Factories of Canadian Products, Limited, Will be Put in Operation During the Winter

With the completion of the two plants being erected and equipped at Walkerville by Canadian Products, Limited, subsidiary of General Motor of Canada, Limited, there will be manufactured in Canada two component parts of automobiles not hitherto made to any extent in this country, viz. motors and transmissions. Both factories now under erection are 600 feet long by 160 feet wide, single storey, steel and concrete construction, saw-tooth design, and when completed will constitute two of the most modern automobile production plants in America. Machine tool equipment is throughout of the most advanced type and all the machines are provided with individual motor drive. In the motor plant, for example, there will be 750 motors in use. One plant will be used for the manufacture of motors; the other for transmissions and axles. Together they will represent an investment of over $5,000,000.

Canadian Woollens Expand

Three Buildings Going Up at Peterboro Which Will Increase Production by 200%

The new textile corporation, Canadian Woollens, Limited, which merged the Auburn Woollen Co. and Bonner-Worth Co., Peterboro, and the Standard Woollen Mills Co., Toronto, has already embarked on a programme of plant extension. Near the Bonner-Worth plant a building, 140 x 56 feet, three stories and basement, is under construction at a cost of approximately $50,000 to house a French spinning plant, which will spin extremely fine worsted yarn on the French or dry-spun system, a new departure for the company. Near the Auburn plant, a building, 140 x 70 feet, one story and basement, costing about $35,000, is going up to be used as a weaving shed. Accommodation will be provided for 100 additional looms. Both buildings are of brick, with stone foundation. The company are also erecting an office building, 66 x 36 feet, two stories and basement, near the Bonner-Worth plant, also of brick construction. Additional equipment, when installed, will increase production over 200 per cent. In the meantime the company report that they are unable to take care of all the business offered.

Cement Mill Expansion

Fifty per Cent. More Capacity from the Plant of the St. Mary's Cement Company

As an indication of how the cement manufacturing industry in Canada is expanding, the enlargement of the plant of the St. Mary's Cement Co., Limited, St. Mary's, Ont., is significant. This company is now about seven years old, and ever since the plant was established, enlargements have frequently been required. During the present year a third kiln has been installed and a corresponding enlargement of plant effected, which will bring the output up from 600,000 to 900,000 bbls. per day. Operations on the larger scale were commenced about November 1 and the company see sufficient business in sight to warrant the extension. The demand for cement in construction work of all sorts is now very heavy.

Its First Gas Engine Factory

Winnipeg Will Shortly Have a Plant at Work Producing Small Gas Engines

A plant is at present being equipped in Winnipeg for the manufacture of what is known as the Hafa-Hors gas engine. It is being established by the Elgin Gas Motor Company, a Manitoba incorporation, closely connected with the Elgin Gas Motor Co. of Elgin, Ill. The plant, which will be producing about fifteen engines a day by December 1, is being equipped with all the latest machinery and about $65,000 has been spent in getting it ready. It will be the first gas engine factory in Winnipeg and will give employment to about 45 hands. Mr. F. J. Grout, manager of the Twin City Separator Co., Limited, is one of the promoters of the new industry.

Bedding Plant to be Enlarged

Fifty Thousand Additional Square Feet of Floor Space for factory of the Ideal Bedding Co.

By adding two storeys to their original building, now a two-storey structure, the Ideal Bedding Co., Limited, Toronto, will increase their floor space by 50,000 square feet. The company's business has grown so rapidly in the past few years that the present equipment is entirely inadequate. As the factory is caged in on all sides by other industries and there is no more land available, it has been found necessary to

extend upwards in order to secure needed space. The building to be enlarged is 50 x 300 feet with an "L" at one end 185 feet long. The construction of the new storeys will be brick throughout with steel sash wherever possible, and the addition with its equipment will cost in the neighborhood of $150,000.

The new floor space will be utilized for the manufacture of brass bedsteads; coil, woven wire and link fabric bed springs. In the space released, a mattress plant will be laid out that will increase output by 100 per cent. From 75 to 100 additional hands will be needed to operate the increased equipment. The company believe that, when the plant is enlarged, they will have the largest bedding factory in Canada, enabling them to take care of the increasing demand for "Ideal" products and undertake the manufacture of the new process electro-welded steel bedsteads.

New Industry for Winnipeg

Parkhill Bedding Limited Are Erecting Plant for the Manufacture of Mattresses and Other Bedding

With the capacity of existing factories reported to be unequal to meet the present heavy demand for beds and beddings, a new company has been formed in Winnipeg to engage in the manufacture of mattresses and other bedding. This is Parkhill Bedding, Limited, of which J. H. Parkhill, for fourteen years president and general manager of Alaska Bedding Co., Limited, is president and manager; A. B. Jones, formerly sales representative of Alaska Bedding Co., vice-president and sales manager, and Reg. C. Young, also a former official of the Alaska Company, director and superintendent.

Parkhill Bedding, Limited, have purchased a considerable piece of property on Notre Dame Avenue West, and are now erecting the first unit of their factory. This is a brick and stone building, 60 x 125 feet, three storeys high. It is designed for the addition of two more storeys as required. Work has been progressing favorably and it is expected that manufacturing will start this month. It is the intention of the company to operate on a partial co-operative basis and all employees will be interested more or less in the distribution of profits. All employees holding responsible positions will be shareholders of the company.

It is interesting to note that Mr. Parkhill was a former chairman of the Winnipeg Branch of the C.M.A., and promises again to take an active part in the affairs of the Association.

Doubling Their Plant

Cowan Company, Limited, Are Erecting New Building Which Will About Duplicate Present Plant

Construction work was recently started by the Cowan Company, Limited, of Toronto, on the erection of a new building which will practically double the capacity of their plant. The new structure, which is going up to the north of the present buildings, will be 80 x 245 feet, of brick and concrete construction, seven storeys high at the front and six at the rear. It represents an investment of about half a million dollars. The extension of facilities was made necessary by the great demand for the company's product—cocoa and chocolate—in Canada, England and other parts of the world.

Belleville's New Industry

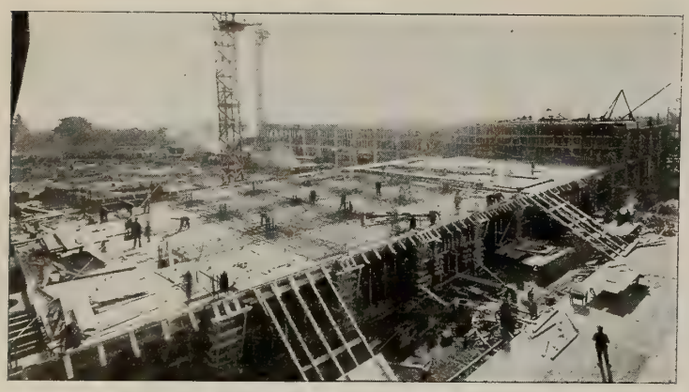
Company Formed for the Purpose of Engaging in the Manufacture of Woodworking Machinery

There has recently been formed in Belleville a company capitalized at $300,000 and known as the Elliott Woodworking Machinery Co., Limited, for the purpose of taking over the business and assets of the Elliott Woodworker Co., Toronto. A half-interest in the new company has been taken by Grahams, Limited, Belleville and Mr. R. J. Graham has become its president. The plant in Belleville, formerly occupied by the Burrell Rock Drill Co., which ceased operations following the death of the proprietor two years ago, has been secured and, as it was in good shape, it was possible to start



New Plant of the Cowan Co., Limited, Toronto

With the erection of the seven-storey building in the foreground the capacity of the company will be practically doubled





Extensive Developments of General Motors of Canada at Oshawa

On the left work proceeding on erection of storage and shipping building; on the right the nearly-completed enamelling shop and assembly plant for Oldsmobiles

operations immediately. The product manufactured consists of portable woodworking machinery, such as sawing, planing and boring machines, which can be operated by electric motor. The plant is L-shaped, consisting of two wings each about 100 x 50 feet. When operations reach their maximum in November, from 30 to 50 hands will be employed.

Automobile Plant Extensions

Three Large Buildings at Oshawa for General Motors of Canada Are Rapidly Being Completed

The programme of extensions which was embarked upon this summer by General Motors of Canada, Limited, will shortly be completed. This includes three buildings situated to the north-east of the present plant. The first of these is the shipping and storage building through which the whole product of the plant will be handled. It is a building 444 x 300 feet, two storeys high, of reinforced concrete, with 119,000 square feet of floor space. Attached is a train shed of structural steel work with corrugated iron roof, containing six tracks. On the first floor there will be live storage while on the second and third cars will be piled two high, giving a storage capacity of 1,000 cars. The building will be completed about December 1.

The second building is the Central Enameling Plant in which all makes of cars manufactured by General Motors of Canada will be treated. It consists of a reinforced concrete structure. 221 x 80 feet, two storeys and basement, and contains 52,800 square feet. It also will be completed about December 1.

The third building is the Oldsmobile assembling plant, where the Oldsmobile car will be put together. Hitherto this car has not been made in Canada. This building is 302 x 80 feet, three storeys and basement, reinforced concrete and will have a capacity of 5,000 cars annually. It will be in operation by about November 5.

Two More Stories Needed

Northland Knitting Company of Winnipeg Forced to Build Because Crowded for Room

Two additional stories are now being superimposed on the present three-story factory building of the Northland Knitting Company, Limited, Arlington Street, Winnipeg, in order to give the company much-needed elbow room. The original building, erected in 1912, was at the time far too large for requirements. Since then business has grown to such an extent that the turnover is now six times what it was in 1913.

The company's principal product at first was sweaters; in 1914, they started to make workmen's mitts and gloves on a larger scale and two years ago they bought out a moccasin plant and have now developed it into a thriving department. For the last two years operations have been carried on at a decided disadvantage and, in spite of high building costs, it has been found desirable to add two stories.

The addition, which is costing between $25,000 and $26,000, will be ready by about December 15, and will give 11,000 feet more floor space. The extra space will be used to extend the present plant with a view to increasing production of the three lines of goods now being manufactured. It is interesting to note that part of the space on the third floor of the building will be set apart for rest room, locker room, dining room and smoking room for the use of employees.

Make Pancake Flour in Canada

Branch of United States Industry Locates in Belleville and Starts Manufacture of Flour

A half interest has recently been taken by Grahams, Limited, Belleville, with the Ekenberg Co. of Cortland, N.Y., manufacturers of Teco Pancake Flour, in a new Canadian company to be known as the Ekenberg Co., Limited. The new industry has been located for the present in the Grahams, Limited, building in Belleville, and they have already started to manufacture two different grades of pancake flour for the Canadian market. Later on they propose to extend their operations, but details of their expansion plans are not yet available for publication.

Tissue Paper Mill Expanding

Interlake Tissue Mills Have Launched Out on Important Programme of Plant Expansion

At Merritton, Ont., the Interlake Tissue Mills have commenced the erection of additions to their plant in order to accommodate the equipment required in connection with the installation of a second tissue paper machine. The latter, which is on order with the Dominion Bridge Co., Lachine, will have a width of 148 inches, being the largest machine of its kind in use in America. With an output of from fifteen to twenty tons per day, according to the weight of the stock, the capacity of the mill will be increased to around twenty-five tons per day by the addition of the new equipment.

An extension, 125 x 100 feet in size and four storeys high, is being added to the beater room for the accommodation of five new beaters, while an extra storey is being placed on the finishing room. A new boiler house, with the latest coal unloading facilities, and a new system of railway sidings are included in the programme of betterments. It is expected that the enlarged mill will be ready for operation by next midsummer. While the management are not issuing any

figures as to the cost of the work, it will probably run in the neighborhood of half a million dollars.

At the present time Interlake Tissue Mills are about three months behind in filling orders, while domestic demands are so pressing that they are unable to take on any export business. With the new equipment they hope to be in a position not only to give improved service at home, but to secure a share of the export orders which are now very extensive.

Restored on Larger Scale

Spring Plant of Dowsley Spring & Axle Co., Limited, Rebuilt After Recent Fire

Quick work in plant restoration is recorded by the Dowsley Spring & Axle Co., Limited, Chatham. Their spring plant, a building 339 x 45, was destroyed by fire on Sept. 11. They immediately commenced reconstruction, and by Oct. 20th were producing in the new building. The latter is 339 x 75, of brick and steel with large windows, 11 ft. 6 ins. square. There is no machinery in the building, it being used as a heat-treating plant. The machinery is now in the former axle plant, a building 186 x 45, one storey. The Company have decided to go out of axle making, as the demand has decreased with the increasing use of automobiles. The estimated cost of the new spring building is $80,000.

More Shoe Capacity

Plant of Clark Bros., Limited, St. Stephen, N.B., is Being Very Considerably Enlarged

Clark Bros., Limited, St. Stephen, N.B., are building an addition to their factory to take care of added production and provide storage and office space now located in their main building. They have been making about 600 pairs of shoes a day, but with the addition hope to be able to make from 1,800 to 2,000 pairs a day. The enlargement is being financed by an issue of $250,000 preferred stock, which has been underwritten by a Boston banking house, and is meeting with a ready sale.

Tire Plant for Hamilton

Over Million Dollars Will be Invested There by Firestone Tire & Rubber Co. of Akron, Ohio

With the passing of by-laws by the Township of Barton, granting fixed assessment, etc., the Firestone Tire & Rubber Co. of Akron, Ohio, are proceeding with their plans to locate a branch plant on the bay shore just east of Hamilton. Their first unit will have a capacity of 3,000 tires a day, and will give employment to about 1,500 people. The initial investment will be all told over a million dollars.

Mr. T. Clements, Comptroller, states that it is the intention to form a Canadian corporation which will be operated entirely separate and independent from the U..S. company. "Our plans are to send a few men with experience into Canada, more as instructors, but the manning of the new company and its operation will be by Canadians."

The property acquired by the Company consists of 135 acres, of which 80 will be used for industrial purposes and the balance for housing. In preparation for equipping their plant, they have leased the buildings and some of the equipment of the Canadian Cartridge Co., which has been idle since the signing of the armistice, and are using it for the making of their machinery.

Confectionery Manufacturers Extending

A St. John Industry Carrying Out Programme Which Will About Double Its Capacity

Expansion in the confectionery manufacturing industry is indicated by the plans of the Corona Company, Limited, of St. John, N.B., who have been in business in that city for several years. At the present time an additional storey is being placed on their building, while it is proposed next spring to make an extension to the plant, the two enlargements about doubling its capacity. Most of the company's trade is in the Maritime Provinces and Western Canada, but they expect to go into other parts of Canada. When enlargements are completed they will have about 250 hands, who will be employed in the manufacture of all kinds of confectionery.

A Woollen Mill Enlargement

Plant at Lindsay of Horn Bros. Woollen Co., Limited, Being Extended for Efficiency Purposes

At Lindsay just now the Horn Bros. Woollen Co., Limited, are putting up an extension to their plant, 86 x 60 feet, two storeys and basement, of reinforced concrete. The building will be used for wool scouring, dyeing raw stock as well as piece goods and also for picking and blending. New machinery will be installed for the purpose and the work will be finished about the first of the year.

The company state that they do not expect production to be increased materially as a result of the enlargement, but the advantage will be that they will be enabled to handle



Quick work on Factory Restoration at Chatham

On the left appears the spring plant of the Dowsley Spring and Axle Co., Chatham, as it appeared after the fire on Sept. 11; on the right the restored building in process of erection. The latter was completed and in operation by Oct. 20



Plant to Make Parchment Paper

Building going up at Merritton for Canadian Vegetable Parchment Paper Co.



Big Addition Completed

Showing Plant of Imperial Cotton Co., Limited, Hamilton, as recently extended

the same amount of work with less labor and at the same time deliver the stock in better condition. The Roumanian order on which the company has been working is now practically completed. They are now operating on goods for home trade and report domestic business as very brisk.

A New Canadian Product

Company Now Completing Plant Which Will Manufacture Vegetable Parchment Paper

An interesting addition to the ranks of specialized industries is that of the Canadian Vegetable Parchment Company, Limited, who are erecting a plant between Merritton and St. Catharines for the manufacture of vegetable parchment paper. Hitherto this has not been a "Made in Canada" commodity, the supply used in this country being imported from the United States and abroad. It is the intention of the new company to supply the Canadian demand and also to do some exporting, as they expect to have some extra tonnage to offer.

The plant now under erection is 80 x 144 feet with extension 50 x 80 feet. It will contain one 80-inch parchmentizing machine, with slitters, rewinders, printing presses, etc., giving a capacity of 16,000 lbs. daily of vegetable parchment paper, both plain and printed. It is hoped to be able to start operations by the first of the year and at the outset about 50 hands will be employed. The company, which has an authorized capital of $150,000, is closely associated with the Garden City Paper Mills Co., Limited.

Will Make Springs In Oshawa

Fine Large Plant of Ontario Steel Products Co., Limited, is Nearing Completion at This Point

In close proximity to the new buildings of General Motors of Canada, Limited, in Oshawa, there is being erected a large spring factory by the Ontario Steel Products Company, Limited, of Gananoque. This plant, which will have an initial capacity of 4,000 tons of springs per annum, will be in operation about January 1, and will give employment to 150 hands. The product will be entirely motor and motor truck springs. The building at present under erection is 360 feet long by 80 feet wide, one storey high. It is of steel and concrete construction, with roof of saw-tooth construction, having "pond" monitor in the centre. The over-all height from ground to saw-tooth portion of roof is 30 feet 6 inches, with height to pond roof, 41 feet. The building is constructed with temporary wall on the east side so that it can be doubled, trebled or quadrupled in size without inconvenience, meaning eventually a building 360 feet square.

Imperial Cotton Enlargements

From 10 to 15 per cent. More Production from Extension to Plant in Hamilton

During the past season considerable enlargement has been made to the plant of the Imperial Cotton Co., Limited, Hamilton. An addition, 70 x 106 feet, three storeys and basement has been made to the main plant, and in addition a new power house, cotton storage shed, sub-station, waste house and service room have been built. Machinery throughout the plant has been entirely re-located and an increase in production of fully 10 to 15 per cent. is anticipated.

Car Wheels for the West

Dominion Wheel & Foundries, Limited, Are Establishing a New Plant in St. Boniface, Man.

Under the name of the Western Wheel & Foundries, Limited, the Dominion Wheel & Foundries, Limited, of Toronto, are erecting a plant in St. Boniface, Man., which will be devoted to the manufacture of car wheels for Western consumption. The capacity of the plant will be about 100,000 car wheels a year and it is expected that operations will commence before the end of the present year. The location of this industry in Winnipeg will tend to eliminate the heavy transportation charges imposed on wheels shipped West from the Toronto plant. While there is no immediate prospect of an increased demand for car wheels, indications are that eventually, with the construction of more cars, the demand will become stronger.

Spending a Million

Canadian Consolidated Rubber Co., Limited, Doubling Capacity of Kitchener Plant

About one million dollars has been appropriated by the Canadian Consolidated Rubber Co., Limited, for the enlargement of the Dominion Tire Factory at Kitchener, and this work is now going on. Extensions are being erected at both ends of the factory, each being 110 x 130 feet, four storeys high and giving 143,000 square feet additional floor space. This will give the factory more than double the present capacity for the production of ties.

Turn to Page 123 for Additional Industrial Expansion Information

A Unique Enterprise for British Columbia

By HUGH DALTON
Secretary, Pacific Division, C.M.A.

FIRST of its kind in the Empire, because it is composed solely of returned soldier shareholders, the Canada Western Cordage Company, at New Westminster, B.C., enters a field of operations without a single competitor established in the Province of British Columbia, the field which it aims primarily to cover.

The Company has an authorized capital of $300,000, of which $150,000 has been issued to veterans who have seen service overseas, the balance being held in the treasury. It is strictly a returned soldiers' enterprise, and no others can hold shares in the Company, and only returned veterans will be employed by it in any capacity except in positions for which special training is required and for which no veteran is available. Organized on the basis of protection to the individual, it is a "one-man one-vote" company, each shareholder having but one vote regardless of his holdings of stock, being strictly co-operative and profit-sharing.

Government endorsation of the soundness of the Company's plans has been given to the extent of a loan of $200,000 for the construction and equipment of its plant. This is under an enactment of the last session of the Provincial Legislature, by which a fund of $2,000,000 was created to assist in the establishment of new industries by returned soldiers in British Columbia; an Industrial Commissioner was appointed to administer the fund; and the strictest scrutiny has been made of the hundreds of applications for loans; the Canada Western Cordage Company being the first, and one of the few, meeting with Government approval. In addition to this the Company has been given a seven-acre site, valued at $8,000, with excellent trackage and power facilities, by the City of New Westminster.

No other industrial enterprise in Canada can claim the signal honor of having the Prince of Wales perform the first act of actual construction, when by turning the first sod on the Cordage Company's site he proved the reality of his interest in the rehabilitation of the soldiers. This pleasing ceremony, performed with the Prince's usual absence of formality, took place on September 29th, the Prince being presented with an engraved silver spade as a souvenir of the occasion by the little daughter and son of the president and vice-president respectively.

The President of the Company is Mr. E. A. Paige, who served in France with the 47th Battalion, and founded the *B.C. Veterans' Weekly*, of which he is editor-in-chief. The Vice-president is Mr. J. C. Thorn of the 7th Battalion, who was a prisoner in Germany. The directors are Mr. F. C. Brown of the 29th Battalion, and R. Pat Foster, M.C. of the 1st Canadian Pioneers. The Secretary is Mr. G. G. Hulme of the 2nd Canadian Machine Gun Brigade.

The plant will have a capacity of 10,000 pounds per day of hard fibre, using in this class of material chiefly manila hemp, sisal and New Zealand flax. The Philippine Islands are the chief source of supply of hemp, and most of the sisal comes from Yucatan.

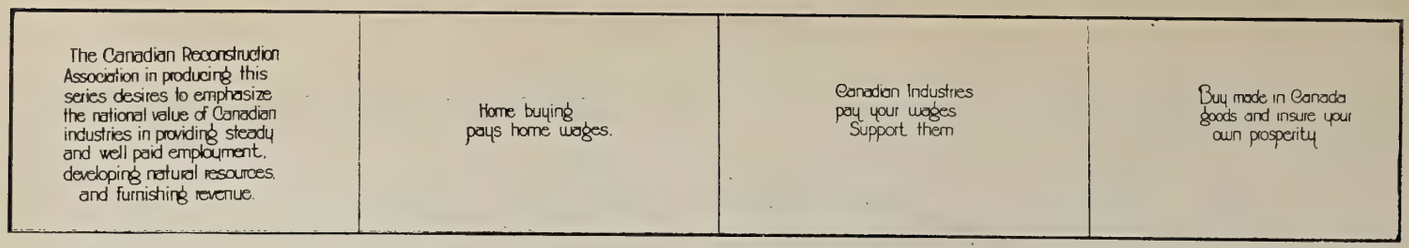


The Prince of Wales Lends his Support to a Returned Soldiers' Industrial Enterprise

On the left, the Prince chatting with the Vice-President; in the centre, the Prince receiving silver spade from little Miss Lilian Paige, daughter of the President; on the right, the Prince turning the first sod

About 65 male employees will be required. The main factory building will be 150 by 200 feet, and this will contain the most modern types of the ingenious machinery used in the manufacture of ropes and cords for general commercial purposes, consisting of preparing machinery, breakers, spreaders, draw frames, spinners and finishing machinery capable of "laying" rope from three-eighths of an inch in circumference to ten inches; the latter size being to meet the requirements of marine towing, of which so much is done on the Pacific coast. Twine and other forms of cordage products will also be manufactured.

Two administration blocks will be required; one 60 by 120 feet, for the office and warehouse for the finished products; the other 60 by 90, for tow room, tar room, boiler room and machine shop. The raw material warehouse will be 40 by 120 with a storage capacity of 480 tons. In addition to these will be the rope walk 1,326 feet in length, with reel room and bobbin room at the ends, each 40 by 60 feet.



Mottoes Appearing on the Industrial Films

Motion Pictures Promote "Made in Canada"

Instructive Series of Films Illustrating Processes in Various Canadian Industries have been Prepared by the Canadian Reconstruction Association, and are being Shown in Theatres Throughout the Dominion

By SIR JOHN WILLISON
President, Canadian Reconstruction Association

WHILE the Canadian Reconstruction Association has been conducting general campaigns for the development of domestic and foreign markets, for the retention of an adequate tariff, and for scientific investigation and utilization of natural resources, it has also been active in the stimulating of public interest in the national value of industrial development. To this end it has made extensive use of motion pictures, and it now has half a dozen films being shown in theatres throughout the Dominion. The pictures deal with various industries and illustrate not only final processes of manufacture but also stages of progress from the employment of raw materials to the finished products. The variety of the subjects is illustrated by the titles which include the iron and steel, woollen, agricultural implements, pulp and paper, sugar, and cocoa and chocoate industries. The pictures are being shown in seventy-five per cent. of the cities, towns and villages throughout the Dominion which have moving picture theatres, and it is estimated that they are seen by over three-quarters of a million people weekly.

The last census of Canadian manufacturers, in 1917, showed 34,380 manufacturing establishments in the Dominion, representing an aggregate capital investment of $2,772,517,680. These establishments gave employment to 700,000 persons, and paid over $550,000,000 annually in wages and salaries. The value of their products was in excess of $3,000,000,000, of which $1,602,820,631 represented the cost of materials used, and $1,412,686,238 the additional value given to the products by the manufacturing processes. It has been estimated that over two million Canadians are directly dependent for their livelihood upon the continued prosperity of Canadian industries, and the following titles have been inserted in the films prepared for the Association, showing the number of employees, the wages paid, value of the product, and capital invested, in specific industries:



Title of the Series

CANADIAN AGRICULTURAL IMPLEMENT INDUSTRY.

Capital invested	$80,000,000
Value of product	50,000,000
Salaries, wages, and commissions paid annually	20,000,000
Number of employees	20,000

CANADIAN IRON AND STEEL INDUSTRY, 1917.

Capital invested	$307,407,980
Value of product	400,385,086
Salaries and wages paid	78,737,983
Number of employees	77,159

CANADIAN WOOLLEN MANUFACTURING INDUSTRY, 1917.

Capital invested	$64,472,747
Value of products	78,800,202
Number of employees	25,332

CANADIAN PULP AND PAPER INDUSTRY, 1917.

Capital invested	$186,000,000
Value of product	96,340,327
Salaries and wages paid	20,500,000
Number of employees	25,000

Two additional films will shortly be issued by the Association, one dealing with the grain and milling industry and the other with the electric lamp industry. Recent figures issued by the Dominion Bureau of Statistics give the following:

CANADIAN MILLING INDUSTRY, 1917.

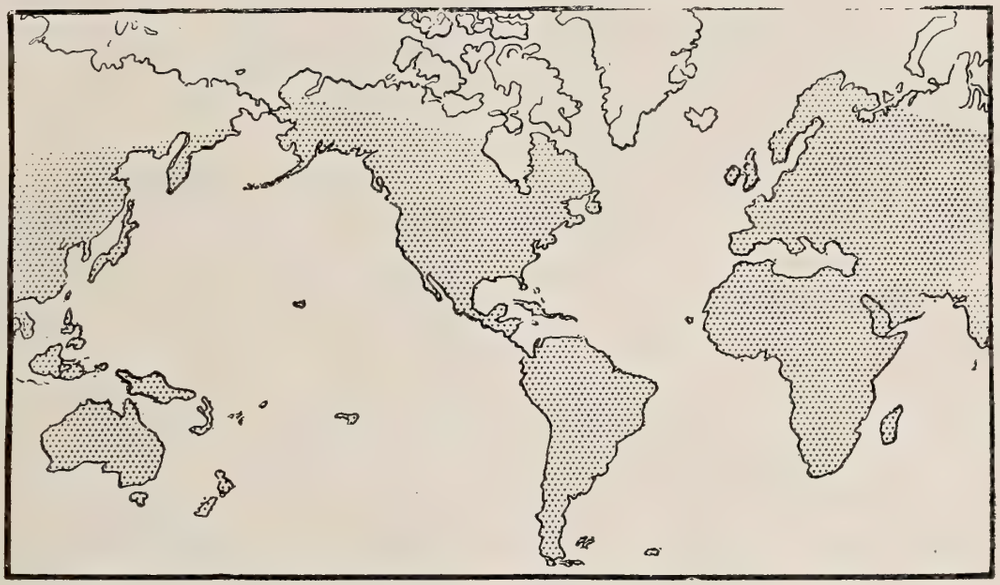
Capital invested	$ 72,573,982
Value of products	224,191,735
Salaries and wages paid	6,292,797
Number of employees	6,914

The character of these industrial films have made them acceptable to moving picture houses throughout the country. Being only a thousand feet in length they can be shown without any pronounced interruption in the general programmes, and they have been so well received by the public that they are in demand by film exchanges. In a letter to the Patheoscope Company, Limited, producers of the films, Mr. C. Hague, General Manager of the Canadian Universal Film Company, Limited, expresses his satisfaction that the industrial series is to start at the rate of one every week this fall, and continues:

"I was very much surprised to note the interest taken by a great number of exhibitors in this series, due to our cutting them off during the summer months. It has convinced me that they are greatly in demand at the present time. . . .

"I would thank you very kindly to advise me as far in advance as possible the list of the subjects, so that we can advise our customers the names of the subjects in advance of their showing."

MADE IN CANADA
TRADE Gillette MARK
KNOWN THE WORLD OVER



OUR MARKET

The shaded portions of the map indicate the various countries in which Gillette Safety Razors are used to-day, justifying the Gillette's famous

"The Shaving Service for Every Man ---Everywhere"

Equally true, too, the wording of our trade mark, MADE IN CANADA---KNOWN THE WORLD OVER, for wherever men shave there is a possibility of Gillette sales, and our efforts have not gone unrewarded.

And best of all, our Export business has not been achieved at the expense of the home markets, which were never so well served as they are to-day.

Gillette
Safety Razor

MANUFACTURED AND SOLD BY
THE GILLETTE SAFETY RAZOR CO. OF CANADA
LIMITED
MONTREAL CANADA

Transportation Items

New S.S. Service

Line from Vancouver to Genoa, the Levant, Black Sea Ports and Egyptian Ports Inaugurated

The Transportation Department has just received advice that the "Societee Generale de Transports Maritime a Vapeur," at Marseilles, France, will inaugurate a service from Vancouver to Marseilles, France, and Genoa, Italy, as well as issuing through bills of lading for shipments to Piraeus, Smyrna, the Levant, Black Sea ports and Egyptian ports. This service was commenced with a steamer loading on October 20th, known as the S.S. *Mont Cenis*, and other steamers will follow at monthly intervals. It is understood that the Vancouver agents of this line are the firm of Dingwall Cotts & Company.

South African Service

Steamships from Canada to South Africa Being Put on by the Elder Dempster Co.

The Transportation Department has received advice from the Elder Dempster Company, Limited, Montreal, that the steamship *New Toronto* will sail from Montreal for South African ports about November 5th, and that this sailing will be followed by another steamer about November 25th. Commencing with the December steamer a monthly service will be inaugurated from St. John, N.B., during the winter months, December to April inclusive, to ports in South Africa. It may be interesting to know that the Elder Dempster Company have been quoting for some time rates from Canadian Atlantic ports to South African ports of 50c. per ton lower than from New York.

Freight Car Shortage

Members Are Urged to do Everything Possible to Facilitate the Quick Movement of Cars

The attention of members of the Association is directed to the present serious shortage of box and coal cars in Eastern Canada and Eastern United States. It is claimed that the situation is even worse in Canada than in the United States. At the present time, or quite recently, there are 44,019 Canadian-owned box cars on roads in the United States, and 20,650 United States-owned box cars on roads in Canada. This makes the balance against the Canadian roads, 23,369.

The Canadian Railway War Board have this matter under active consideration with the U.S. Railroad Administration authorities for the purpose of securing some of the Canadian-owned cars returned to home roads. The latest reports would indicate that an improvement along this line is developing.

In the latter part of September the coal car shortage in the United States was approximately 100,000, or in other words this is the number of cars short at the mines for carrying coal. On September 1st over 12,000 coal cars of U.S. lines were located on Canadian railways.

It is well known that members of the Canadian Manufacturers Association have done everything they can in the way of prompt loading and unloading cars as well as heavier loading of all equipment. However, the car situation in the early part of this year was entirely opposite from what it is to-day. That is, there was quite a surplus then, whereas there is now quite a shortage. The above information is therefore placed before members so that they may be fully advised of the importance of carrying on the efforts which were put forth during the war. In other words, it is urged that every member load and unload every car in the quickest possible time; also that all cars be loaded to their full capacity where possible.

On October 4th the Transportation Department received a report of foreign coal cars held under load as of September 30th by certain consignees at various points throughout Eastern Canada. The commodities loaded in these cars are coal, plates, machinery, pipe, scrap, steel, lumber and tubes, and the number of days held, over free time, ranged from 2 to 28. The majority, however, seem to have been held from 4 to 5 days.

It is interesting to note, on examination of the information, that very few of the consignees were members of this Association.

Steamship Sailings from Montreal

Ships Scheduled to Sail for Various Points During Early Part of November

The following information regarding the sailing of steamships from the Port of Montreal to various trans-Atlantic ports is taken from a bulletin issued by the Canadian Pacific Railway:

To Liverpool.

Canadian Voyageur	Can. Govt. Mer. Marine, Ltd.	Ab't Nov. 5
Canadian Trooper	Can. Govt. Mer. Marine, Ltd.	Ab't Nov. 7
Minnedosa	C.P.O.S. Line	Ab't Nov. 16
Canadian Miller	Can. Govt. Mer. Marine, Ltd.	Ab't Nov. 17

* Sails from Quebec.

To London.

Corsican	C.P.O.S. Furness Line (C.P.O.S.)	Ab't Nov. 6
Venusia	Cunard Line	Ab't Nov. 13
War Peridot	C.P.O.S. Furness Line (C.P.O.S.)	Ab't Nov. 16
Canadian Navigator	Can. Govt. Mer. Marine, Ltd.	Ab't Nov. 20
Montezuma	C.P.O.S. Furness Line (C.P.O.S.)	Ab't Nov. 22

To Antwerp.

North Point	C.P.O.S. Furness Line (Furness)	Ab't Nov. 11
War Beryl	C.P.O.S. Furness Line (C.P.O.S.)	Ab't Nov. 11
Glenspean	C.P.O.S. Furness Line (Furness)	Ab't Nov. 15
Tunisian	C.P.O.S. Furness Line (C.P.O.S.)	Ab't Nov. 21

To Glasgow.

Cassandra	Anchor-Don. Line	Ab't Nov. 6
Sicilian	C.P.O.S. Line	Ab't Nov. 8
Cabotia	Anchor Donaldson Line	Ab't Nov. 18

To Avonmouth Dock (Bristol).

Vellavia	Cunard Line	Ab't Nov. 4
Sardinian	C.P.O.S. Line	Ab't Nov. 9
Cornishman	Dominion Line	Ab't Nov. 15

To Manchester.

Manchester Importer	Manchester Liners	Ab't Nov. 12
Manchester Division	Manchester Liners	Ab't Nov. 13
Manchester Marine	Manchester Liners	Ab't Nov. 16

To Hull

Norfolk Range	Furness Line	Ab't Nov. 1

To Leith.

Cairngowan	Thomson Line	Ab't Nov. 10

To Newcastle on Tyne.

Cairnmona	Thomson Line	Ab't Nov. 9

To Dublin.

Ramore Head	Head Line	Ab't Nov. 8

To Belfast.

Melmore Head	Head Line	Ab't Nov. 25

To St. Nazaire (France).

Alston	Marine Nav. Co.	Ab't Nov. 5
Cape Corso	Marine Nav. Co.	Ab't Nov. 8

To Havre (France).

Lord Dufferin	Canadian-Transatlantique Line	Ab't Nov. 1
Californie	Canadian-Transatlantique Line	Ab't Nov. 15

To Bergen, Stavanger and Christiania (Norway).

Drammesfjord	Norwegian American Line (C.P.O.S. Agents)	Ab't Nov. 15

To Buenos Aires and Monte Video.

*Canadian Settler	Can. Govt. Merchant Marine, Ltd.	Ab't Nov. 7
Clan Macbeolan	Houston Lines	Ab't Nov. 15

* Buenos Aires only.

To South Africa.

Cape Town, Port Elizabeth, East London, Durban and Delagoa Bay.

New Toronto	Elder-Dempster Line	Ab't Nov. 2
Bassa	Elder-Dempster Line	Ab't Nov. 25

To Australasian Ports.

Melbourne, Sydney, Auckland, Wellington, Timaru and Dunedin (Port Chalmers).

Whakatane	New Zealand Shipping Co.	Ab't Nov. 15

To Kingston (Jamaica) and Havana (Cuba).

Canadian Warrior	Can. Govt. Merchant Marine, Ltd.	Ab't Nov. 1
Canadian Recruit	Can. Govt. Merchant Marine, Ltd.	Ab't Nov. 22

To Barbados, Trinidad and Demerara.

Canadian Gunner	Can. Govt. Merchant Marine, Ltd.	Ab't Nov. 12

To St. Johns (Newfoundland).

A Steamer	Gulf St. Lawrence Shipping & Trading Co.	Ab't Nov. 3

Committee Recommended Tariff Board

Special Senate Committee on Machinery of Government Dealt with this Question in its Report

INDUSTRIAL CANADA deals editorially this month with the great desirability of the establishment of a Tariff Board which will make a scientific study of all tariff questions and thus helps to remove them from the field of political controversy. In this connection, the recommendations of the committee appointed by the Senate last May to report on the Machinery of Government should be given careful consideration. Sections 33-40 of the Committee's report contain the following remarks on the subject of a Tariff Board:

"33. We recommend a Tariff Board with powers to investigate (both as directed by Parliament and of their own motion), all problems connected with production, transportation and living conditions in Canada, and in those countries the production of which competes with Canada, either in home or foreign markets, in so far as tariffs are an element in these questions.

"34. It would be inadvisable in our opinion if such a Board be established to limit the scope of its powers of investigations. The effect of tariffs on the cost of production, and therefore on the well-being of the whole people, as well as on the capacity of Canadians to compete with foreigners in the markets of the Dominion, and with other nations in common markets, is far reaching and complex.

"35. It is within the knowledge of those who have followed the course of industrial development that industries have through inadequate or inaccurate information been established, languished and died, with loss of capital and dissipation of energy. It is probable on the other hand, that there are industries which might be with advantage transplanted to Canada. The Board might by its investigations and the dissemination of its findings prevent loss, and make easier new forms of production.

"36. At no time more than the present have industrial and economic conditions changed more rapidly. At no time has the avoidance of failure and of the increase of stable production been more important. We therefore think it for the advantage of Canada that this Board be established to prepare and have available information on all phases of these questions for the guidance of the Government, of Parliament, and for the information of the public.

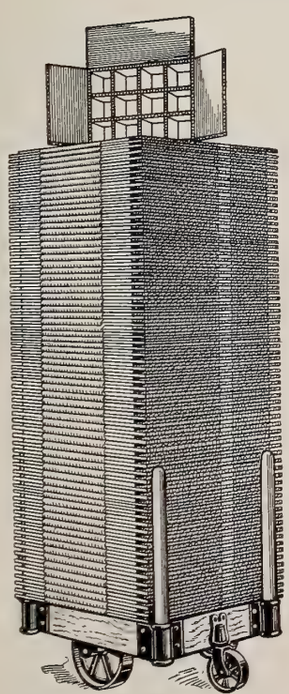
"37. We wish with emphasis to state that it is not our intention to propose the establishment of a Board with other powers than investigation and statement of facts. To confer on any Board powers to frame a tariff would be a devolution of a function of which a Government should not debarrass itself.

"38. We believe, however, that in a matter which excites such lively passions, which threatens the unity of the people, a full statement of the facts of each phase of this complicated question, by an independent Board would be of great value. We say this without any doubt that the minister concerned has an organization which ascertains to his satisfaction conditions affecting tariff questions. These facts are not usually disclosed. It does not tend to allay unrest to take on trust his decisions, whereas the reports of this Board would be open to all and would convince the fair-minded.

"39. The composition of such a Board should represent the consumer, the producer, labor, and the expert in these matters. It should be appointed by Parliament and be permanent.

"40. We are aware that the above indications of the scope of the duties of the Tariff Board would trench on those of a Trade Board, or any other organization to increase the volume of Canadian trade.

"We are not concerned with the precise form of organizations to be established. That form must be arranged by the Government. We are confident, however, that the Tariff Board would produce good results, and we are equally confident that conditions require the wholesome stimulation of Canadian production and commerce to the highest degree."



OUR SPECIALTY
FOLDING CELLBOARD
FREIGHT BOXES

Cellboard is the proper name for what is commonly called corrugated board

Established 1909

ADAMS CELLBOARD COMPANY

MANUFACTURERS OF FIRST QUALITY
SHIPPING CONTAINERS AND CORRUGATED PAPER

IMPORTERS OF
GUM SODA AND SEALING TAPES

Our board is the thickest on the market. Our capacity is a carload per day

We desire to have your samples or measurements to quote on when you are considering placing an order

5 TO 21 DEFRIES STREET
AND DON ESPLANADE
TORONTO

We tell you how much production you are getting in the working time you are paying for

That's really what you need to know to determine your costs. Isn't it?

In and out time records at the entrance are absolutely essential, of course.

But after the man has reached his machine or bench, what then? Is his time occupied with a steady stream of work? Is it necessary to burden a foreman or superintendent with the duty of seeing that every minute possible is spent on production?

Or can this mighty useful duty be left to a machine?

It can, and here is the machine.

IT'S AN INTERNATIONAL JOB RECORDER.

It prints in plain, unchangeable figures the starting time and finishing time on any job or operation.

What Advantage is That?

1. It enables you to get the absolute cost on each and every job that goes through your shop.

2. It does the work of a foreman without using the foreman's time in seeing that the men do not waste your valuable minutes.

3. It shows the management who are the workers and who are the shirkers.

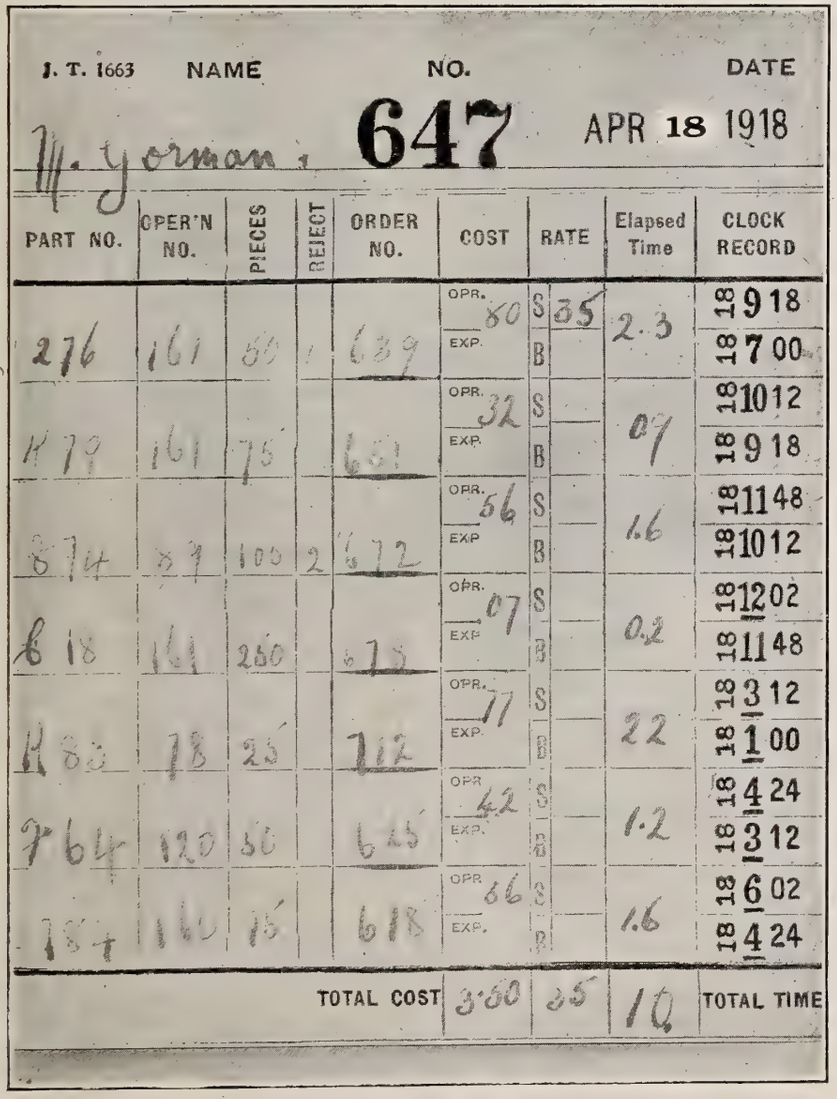


The famous International Job Recorder

4. It acts as a positive check on your pay-roll. You can check your total number of hours spent on different jobs during the day with the time registered on your In and Out Time Recorders.

5. It gives you your total cost, therefore your total profits.

A sample "Job Card" used in the International Job Recorder, Any size or shape card can be used.



J. T. 1663 NAME W. Yorman NO. 647 DATE APR 18 1918

PART NO.	OPER'N NO.	PIECES	REJECT	ORDER NO.	COST	RATE	Elapsed Time	CLOCK RECORD
276	161	50	1	639	OPR. 80 S 35		2.3	18 9 18
					EXP. B			18 7 00
K 79	161	75		681	OPR. 32 S		07	18 10 12
					EXP. B			18 9 18
874	87	100	2	672	OPR. 56 S		1.6	18 11 48
					EXP B			18 10 12
618	161	250		673	OPR. 07 S		0.2	18 12 02
					EXP B			18 11 48
R 83	78	25		712	OPR. 11 S		22	18 3 12
					EXP. B			18 1 00
764	120	50		625	OPR 42 S		1.2	18 4 24
					EXP. B			18 3 12
184	140	15		618	OPR. 66 S		1.6	18 6 02
					EXP. B			18 4 24
				TOTAL COST	3.80	35	10	TOTAL TIME

For convenience in computing the time, the Recorders are made to record in hours and hundredths of hours, or hours and tenths, or hours and minutes. Prints either date or day. Can be obtained with an elimination device to eliminate the noon hour or any non-working period. Can be operated electrically if so desired. The letters S. and B. indicate the Stopping and Beginning time.

What is Profit?

It is the difference between your cost and your selling price.

Intelligent cost-keeping insures real profits.

In fact, the life-blood of business is "accurate costs."

How long can you carry on without profit?

How can you determine your profit without accurate costs?

International Job Recorders are showing the way to accurate costs for hundreds of satisfied users. Why not you?

Sound judgment is the greatest asset in business. If you look around you will find men of sound judgment are using International Time and Job Recorders. Why? Because sound judgment knows Internationals will protect payrolls and production costs.

Our pride is founded on an ever-increasing list of satisfied users. The absolute reliability of our Time and Job Recorders has made it necessary for us to increase our output many times in the last few years.

May we have an interview?

International Business Machines Co., Limited

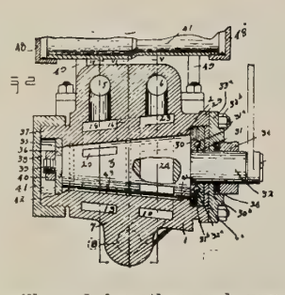
FRANK E. MUTTON
Vice-President and General Manager

Head Office and Factory
Toronto, Canada

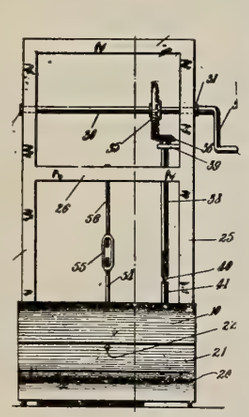
Also at Montreal and Winnipeg

(Also makers of Hollerith Electric Tabulators and Dayton Computing Scales)

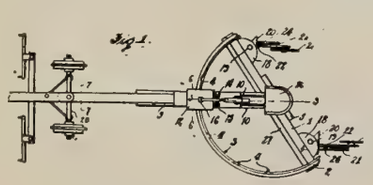
PATENTS FOR SALE



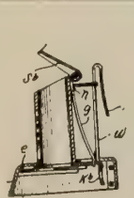
CONTROLLING VALVE MECHANISM, with means for controlling the operation of an element or a plurality of elements, such as one or more elevators, vertically movable doors on furnaces, table rolls in rolling mills and for other such purposes. The device is simple in construction, strong, durable, efficient, and convenient in use and readily set up and comparatively inexpensive to manufacture. For further particulars apply to Messrs. Slaw & Slater, Steubenville, Ohio, U.S.A., who offer patent rights for sale.



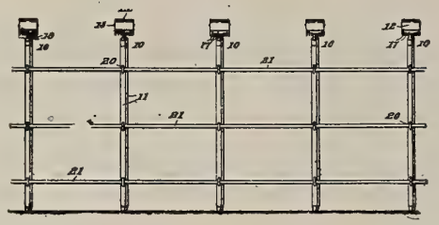
FLOOR CLEANER, having a rotary brush by means of which dirt and accumulations are gathered up and delivered into a compartment from which they may be readily removed. It is strong, durable and efficient in use. Mr. Fedor Szewczuk, Box 94, Flint, Michigan, U.S.A., is desirous of getting in touch with a responsible manufacturer with a view to arranging the manufacture or disposal of his interests.



TERRACER, DITCHER AND GRADER.—Will build a terrace to any desired height, cut a ditch to any desired depth and will leave a flat bottom. This device has been thoroughly tested and is considered one of the best on the market. Mr. S. L. Reese, Corsicana, Texas, U.S.A., is open to negotiate for the disposal of his interests or arrange for manufacture of same in the Dominion.



COIN CHANGER, safest, quickest, most durable and efficient coin changer on the market. Mechanically perfect, is equipped with every desirable convenient advantage of superior method for making the change. Patent rights in the Dominion are for sale by Mr. W. L. McClenahan, Lock Box 387, Council Bluffs, Iowa, U.S.A.



HAY DRIER, designed to provide a device which will insure the proper drying of a large quantity of hay so that when stored there will be no chance of same heating or becoming mouldy. The device is foldable and adjustable and so constructed as to have great strength. Patent rights in the Dominion are for sale by Mr. Fedor Szewczuk, Box 94, Flint, Michigan, U.S.A.

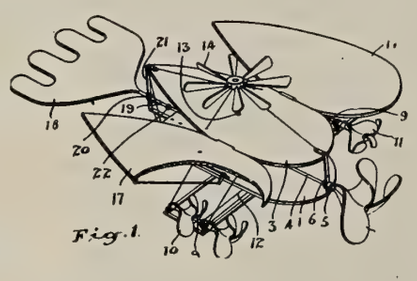
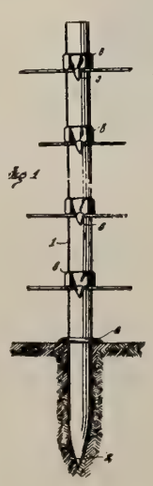
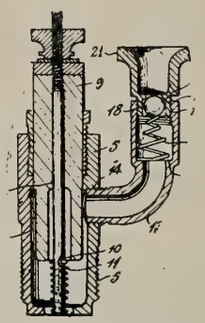


Fig. 1.

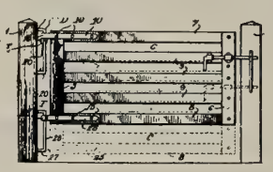
AEROPLANE, above illustration shows the Noland Aeroplane designed for safety, durability and speed, equipped with special ascending apparatus and having dependable stability and wings spread. For further particulars apply to the inventor, Mr. Geo. H. Noland, 21 Finland Street, Copper Cliff, Ontario, Canada, who offers patent rights for sale.



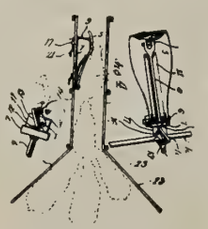
FENCE POST, adapted to be driven into the ground and provided at intervals along its length with outstanding ears under which recesses are provided, said recesses being adapted to receiving the line wires and having means for firmly holding the wires in position. Patent rights in the Dominion are for sale by Mr. Alex. Sholund, Route 1, Box 13, Marysville, Washington, U.S.A.



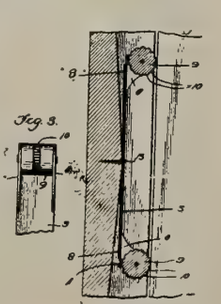
SPARK PLUG, having means for admitting air, gasoline or other fuel to the cylinder through the spark plug, means being provided whereby the air or fuel so admitted will be heated prior to its arrival in the cylinder. Patent rights in the Dominion are for sale by Mr. John O. Brook, Wilmington, North Carolina, U.S.A.



GATE HINGE, which will allow the gate to be automatically adjusted in an upright direction, and so maintain against casual displacement. It is particularly adapted for use where the ground is apt to be frozen or covered with snow, when the gate may be readily raised to swing over such or other obstruction. Patent rights in the Dominion are for sale by the inventor, Mr. Fred Wiederracht, Wapello, Iowa, U.S.A.

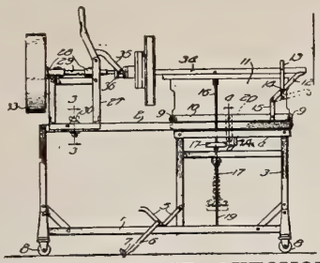


LIVE STOCK COUNTER, for mechanically and automatically registering the count of live stock by the moving animals themselves. The device is simple in construction, strong, durable and guaranteed to be accurate. For further particulars apply to Messrs. Coonan, Moore & Coonan, Post Office Box 146, Poise Barracks, Idaho, U.S.A.



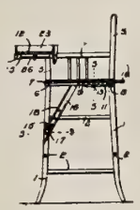
SASH HOLDER, which will firmly hold the sash in any desired position without requiring the use of weights or the like. The device is simple in construction, strong, durable and efficient in use and should prove an attractive proposition in view of the very extensive demands. Patent rights in the Dominion are for sale by Mr. G. J. T. Iwersen, Point Roberts, Washington, U.S.A.

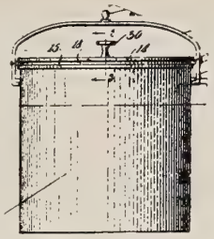
(Continued on page 81)



WORK STAND FOR AUTOMOBILE ENGINES, for repairing and overhauling, re-boring or burning-in, is exceedingly strong and may be transferred from one place to another whereby light, heat or air makes work more comfortable. Is provided with every essential, including tilting motor block bracket which is controlled with a tilting and lock lever. No bolt or nut to fasten. Requires minimum amount of time and attention. Pat. rights in the Dominion are for sale by Mr. H. P. Fries, Brayton, Nebr., U.S.A.

CHILD'S CHAIR, adjustable so as to adapt itself to accommodate children of different sizes and to hold them so that the possibility of accidentally slipping down through or their climbing out of the chair is eliminated. Patent rights in the Dominion are for sale by Mr. Phillip A. Shaver, Box 21, Route 2, Puente, California, U.S.A.



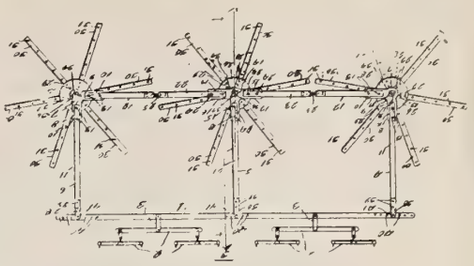


COOKING VESSEL, provided with means for securely fastening cover to the vessel and having means for collecting steam and gases that arise from the material cooked, and conducting the same outwardly at one local point where they may be received in a suitable recepticle. Pat. rights in the Dominion are for sale by Mr. Jan Crawiec, Box 169, Salem, Pa., U.S.A.

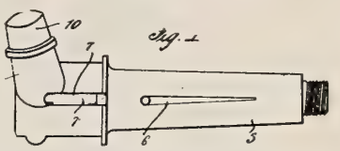
PATENTS

Trade Marks, Design Patents, Copyrights

Being near the Canadian Patent Office, we are able to personally interview examiners, thus often getting broader claims and earlier allowance of your Patent. We have access to all Patent Office Records for making searches and report, and solicit the business of Manufacturers, Engineers and others who realize the advisability of having their Patent Business given PERSONAL ATTENTION by experts at Ottawa.



ROTARY HARROW, having means for universally joining a multiple of frames each carrying a rotary harrow. Said harrow will accommodate themselves to the irregularity of the ground. The inventor, Mr. J. G. Williams, Room 17, Merit Hotel, Yakima, Washington, U.S.A., offers pat. rights in the Dominion for sale.



SPRING LUBRICATOR, having means for providing a spindle with lubricant without removing the wheel. The device is simple, durable and inexpensive to manufacture. Patent rights in the Dominion are for sale by Mr. O. H. Stair, Flatonia, Texas, U.S.A.

Manufacturers interested in patents should have their names on our Service Dept. mailing list.

HAROLD C. SHIPMAN & CO. - Ottawa, Canada

Ask for our Booklet on Patents, "Patent Protection"

Branch Office, Washington, D.C. Associates All Foreign Countries

A Premature Report

Ford Motor Co. Not Likely to Build Assembling Plant in Regina for Some time

The report that the Ford Motor Co. of Canada, Limited, was about to erect an assembling plant in Regina, proves to be somewhat premature. Mr. W. R. Campbell, secretary of the company, states that at the present time there are no definite plans for building at Regina. They are, it is true, establishing a branch there, but this is more or less a shift in sales arrangements on account of the fact that they have taken over their dealer's premises. Some property has also been acquired from the city, and the company may build on it at some future time, but certainly not before next year, as the present premises will accommodate them very nicely for some time to come.

One-Fourth More Capacity

Shoe Factory in Quebec of the John Ritchie Co., Limited, Being Extended

A new wing is being added to the factory of the John Ritchie Company, Limited, Quebec, which when completed will enable the company to manufacture 3,000 pairs of men's shoes per day or about 25 per cent. more than the present capacity. The addition is 100 feet by 40 feet, and will give increased floor space on each flat of the present building. This is the company's second addition in the course of seven years and is made necessary by the growing demand for the company's product. In 1915 they produced 8.4 per cent. of all the men's welts manufactured in Canada, whereas in 1918 their production represented 15.3 per cent.

Condensed Advertising

MECHANICAL ENGINEER WANTED

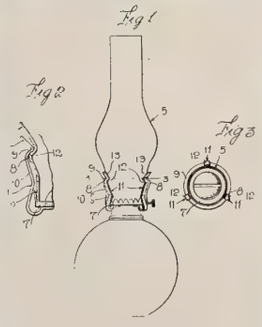
Good opening for ambitious young man, graduate in Mechanical Engineering, preferably under thirty years of age. Canada Forge Company, Welland, Ont.

WANTED

Agency of Specialties for Quebec City and District. Best connections and references. Reply to G. A. Vandry, 28 St. Joseph St., Quebec.

EUROPEAN REPRESENTATIVE

Englishman with twenty years' business experience in Canada would like to meet any manufacturer desiring resident personal representative in London to introduce his goods or develop his markets. Please address Box 4700 INDUSTRIAL CANADA.



CASH or ROYALTY

Patent No. 191,079. This invention relates to an improved Lamp Chimney and has for its primary object to provide improved means on the neck of chimney for engagement by upstanding resilient members on lamp burner whereby the chimney will be rigidly held in its applied position against accidental displacement.

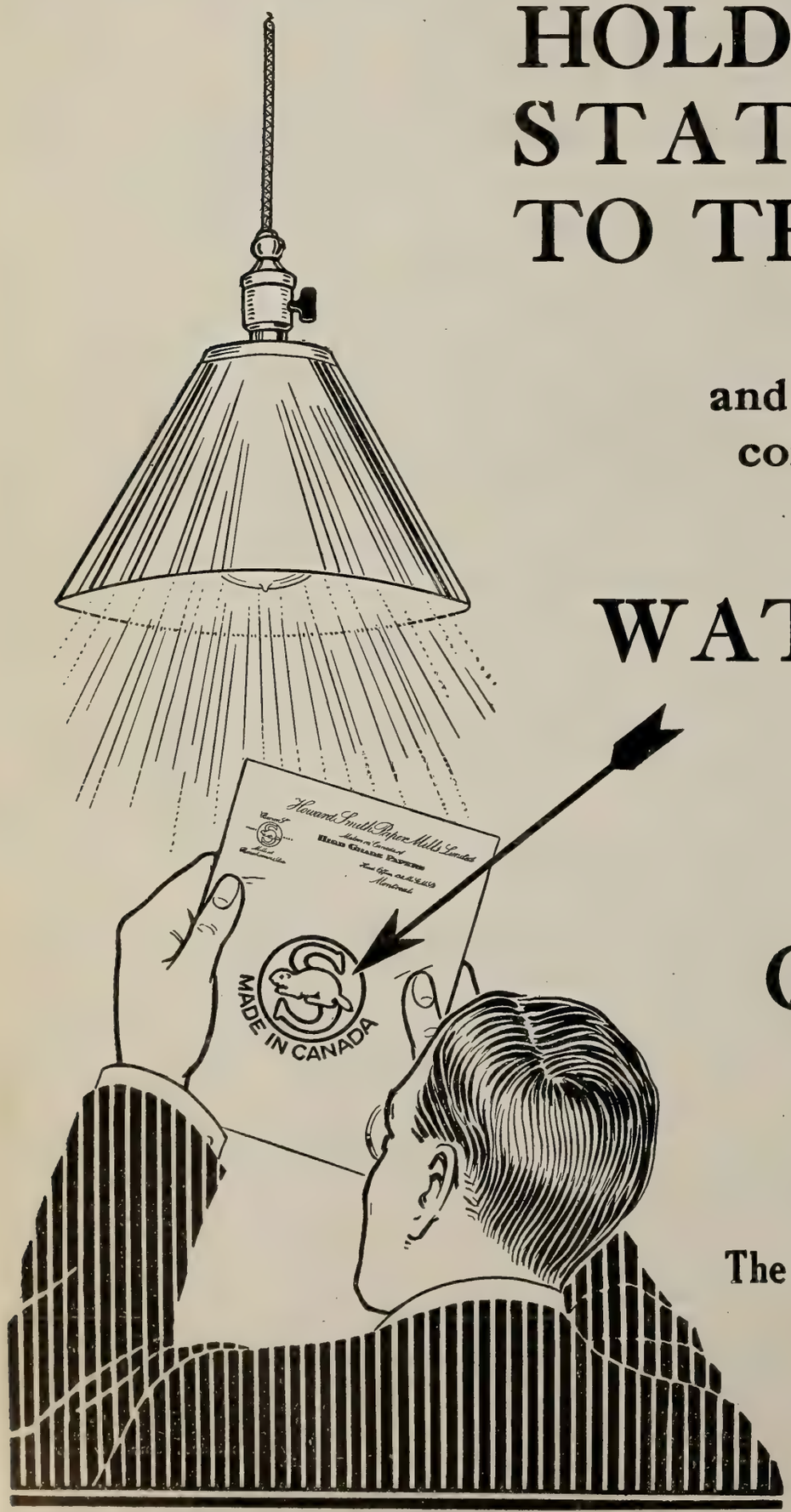
This is unquestionably one of the best inventions of its kind ever brought before the public possessing all the necessary features to make it commercially successful and being in great demand has no commercial competitor. Manufacturers and capitalists, this is the chance of a lifetime. Investigate the merits of this invention today, tomorrow may be too late.

For further particulars address: B. C. Hutto, Pelion, S.C., U.S.A.

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OFFICE AND FINANCE

Filing Systems, Good, Bad and Indifferent

How to Make Sure of the Profits that May be Lost when Letters Can't be Found

By ARTHUR VAN VLISSINGEN, Jr.

(Reprinted by special arrangement from "System")

THE papers handled in the office of one banking house in New York—its name is on the tip of everyone's tongue—are valued, on the average, at $10,000 each. The transactions are in such large figures that the loss of interest on the money tied up as a result of a paper misplaced for a day or two would often run up into three figures.

But papers are not lost in that office; there has been no instance of the sort since, three years ago, a contract well up in the millions was whisked off the desk of a partner, out the window into Wall Street by a sudden gust of sea breeze. And the blame for that, as the file chief protests with hands upraised, can certainly not be laid at the door of his department!

How Letters are Handled

How, you may ask, can this house guard itself against losses? The answer is simple: It takes as great precautions in handling all its papers as it does in safeguarding $10,000 bills. It can afford to.

When a letter comes to the mailing department, the envelop is stamped with a numbering machine, and it is registered in a book. The envelop is opened by a man of responsibility—the head of the file department. He transfers to the letter the number on the envelop, and reads it. This file department head, mind you, is not a $20 clerk; he's a real executive, who has his part in making the company plans and who knows what is going on just as much as does any member of the firm.

When he reads a letter he knows who is concerned with it. He knows, for instance, that Jameson is handling the deal, and that the letter raises a point which Jameson will have to take up with Marvin, the head of the firm, who won't be in until to-morrow morning. No matter what they decide, the letter will next require the cashier's attention. And when he has made out the cheque, the letter will be safest in the files, in case Jameson needs it again.

File Slips are Attached

So the file chief attaches a slip to the letter; this specifies that Jameson can hold the letter until noon next day, that he is then to return it to the filing department for registry, that the cashier may have it from noon to 4 o'clock, and that at 4 o'clock it is due back in the filing department once more. A copy of these facts is set down in the register, behind that letter's number. And if the letter does not return from Jameson's desk at noon, a messenger is sent to get it. Thus, no important papers are "sunk without a trace." They return to the filing department as an intermediate stop in each of their trips from one executive to another. And the time schedule assures that only a few hours, at most, will elapse between the moment that a paper is mislaid and the moment that the loss is discovered.

That company's filing department, with its complicated registries and schedules, is not for a moment to be advocated as a model for all other filing departments. Probably not more than a dozen concerns in America could use such a plan profitably!

The big fundamental lesson for business in general that that set of files points is, not the method itself, but the individuality of method that has been developed to meet a specific and peculiar need. Whoever originated that method had the mind of a master in filing. He was not afraid of the right plan, because it had never been tried.

The basic principle of all right filing is: Suit the method to the needs of the business. When files are organized accordingly they may very easily save $10,000 a year or more in a business of moderate size. For the average business, fortunately, one of the standard methods will fill the bill better than a specially designed plan.

Filing that saves the executive time and the filing department expense will, in general, avoid needless duplication of filing, of indexing, and of effort in filing and finding papers. Fundamentally the plan that is simplest and yet adequate is the best plan.

An extreme example of this was described recently in *System* by a man who has a "one man business." He found that of the letters he receives every month, not more than a dozen or so does he ever need to see again. And these fall in one or two hard-and-fast classifications. All other letters he throws in the waste basket as soon as he has answered them. And a small box file, renewed every two or three years, is ample for all his filing.

Five General Methods

There are in current use five general methods of filing: (1) alphabetical; (2) numerical; (3) subject; (4) automatic; and (5) geographic. Each of these is especially applicable to specific kinds of work; the manager's difficulty comes in selecting the method which will bring the best results.

"An interesting example of how expensive and unsatisfactory the wrong filing method may be," says an office management expert, "came to me in the very first bit of 'efficiency work' I ever did. That was a good many years ago; I was then a clerk in a Chicago department office of a big express company. My work was tracing down the complaints on service that came to our department. And I had to refer to the files almost continually. The filing clerk, it seemed, could never find anything I needed. I took to hunting up what I wanted, rather than wait. And after I had been doing that for a week or two it dawned on me that the whole filing plan was wrong.

"I put my case up to the department head so forcefully that he told me to change the files in any way that I wanted to. And when I had changed over the files—it took me only a few days to do all the work—we had no more trouble.

"The files had been organized alphabetically—perhaps the simplest method there is for most concerns. But consider our correspondence—practically all of it about delays, losses

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HEAD OFFICE . . TORONTO

of shipments, thefts from packages, and the like. Each letter was concerned with the shipper, the consignee, and besides our office at least one other office or department of our company. I might write three letters—one to each of these. And the letters would be filed in three different places.

"The volume of our correspondence was not great. It was easy to divide the entire correspondence into about 25 classes—delays, shortages, losses, and the like. We started, then, 25 divisions in our files—one for each subject. We made no subdivisions, but filed each letter in sequence as it came to its division of the files.

"Since we always had a pretty definite idea about the date of the correspondence we had merely to run through half a dozen letters to find what we wanted. We always knew, of course, what the correspondence was concerned with. And so we got quickly rid, at one move, of practically all our difficulties. The change was simply from alphabetical to subject filing."

A similar result came to a Minneapolis knitting mill which had been burdened by a poor set of files in the shipping department. These files contained stencils with which the shipping clerks addressed cases and boxes for customers. They were arranged in alphabetical order, behind guides. But it generally took the department's errand boy five or six minutes to find a stencil; about 10 per cent. of the stencils called for could not be found, and had to be recut.

This expense—though not inconsiderable—was far from being the biggest waste that the poor filing caused. Similarity in names might result in an order being sent, for instance, to O. B. Johnson of Walla Walla, Washington, when it was intended for Ole D. Johnson in Winona, Minnesota. The round trip freight on such a shipment is worth saving, not to mention Ole D. Johnson's good will.

Divided by States

The difficulty was overcome by a method as simple as that which worked so effectively in the express office. The stencil was divided by states, arranged alphabetically. Behind the guide for each state was placed a set of alphabetical guides.

This new division separated O. B. Johnson in Washington from Ole B. Johnson in Minnesota. And if the stencil of Ole Johnson in Winona is confused with that of Oscar Johnson in Duluth, the extra freight charge is for only a few hundred miles, instead of a few thousand.

One cause of delay in hunting out stencils, too, was the difficulty of reading them. The boy had to lift each one out of the drawer—the waxed paper was smeared with black paint—and hold it up to the light.

White sheets of stiff cardboard—high enough to extend only half-way to the top of the drawer—overcame this trouble. These sheets are scattered through the files in about the proportion of 1 sheet to 2 stencils. The searcher can now read the stencil at once, for its letters stand out clear against the white background.

The files which require the least indexing are the cheapest to operate. The two instances already cited are files of this sort—they require no indexing at all. "It is true 9 times out of 11," declares an expert on office management, "that the concern which is using an index on its files could profitably change its methods to do away with all indexing except the occasional cross reference when a letter from Barnes-Washburn Company may be asked for, or the same letter may be indicated as from George Mallson, its writer.

"A big proportion of the executives who think they need to have each letter indexed in two or three different ways could get along just as comfortably with a straight subject

file, or an alphabetical, or geographic. The occasional delays in finding a letter—there need be very few of them if the right method has been selected—are overbalanced by the saving in filing expense."

"It is remarkable," comments an office manager whose experience lends weight to his statements, "that the man who wants to economize on his filing will almost always select the material expenses—cabinets, for instance—as the place to begin. Yet if he began on the labor of filing, and did away with one file clerk out of 10, the saving in a few months would exceed the total cost of all the materials that this department uses in three or four years.

Central Files Were Lacking

"A striking example of this came to my attention last year in one of our branches. I set out to cut costs in that office. And here is what I found out about the files:

"Five of that branch's department had been keeping up their own files. There were no files that could rightly be called central.

"My first step, after finding out that no reason except tradition caused this, was to move all the outlying files into a room just off the general offices. Seven clerks had been filing in the five departments. We took two girls away from the work at once, leaving five to handle it.

"So far we had merely consolidated the files. Our next job was to reorganize the work. We transfered the files into one set of cases, alphabetically arranged. Then we assigned a section to each girl; we made her responsible for all filing and all look-ups in her section, say A. to J. She at once took a pride in keeping up her section to the best of her ability. The girls did not interfere with one another, because their 'territories' did not overlap; and we were able within 10 days to take two more girls from the department, leaving 3 to do what 7 had done before. The 3 of them are doing it easily and well.

"The next move was to rearrange the files. We placed all 1917 correspondence in cabinets along the south wall, and all 1918 correspondence along the north. The east wall is a window—the room is narrow—and the west wall mostly door.

"By January, 1919, our plan had been working a few months. It was time to transfer; so we merely carted the 1917 cabinets to the basement and put new cabinets in their place. Thus we start new files every year.

"We did not transfer the folders to transfer cases, because transfer cases are hard to work with, and we occasionally have to look up correspondence two years old. It saves time for the clerk if she has only to go through basement files exactly like what she is working wtih every day upstairs. And we saved the work of transferring the folders into cases each time.

Correspondence Kept Three Years

"We keep our correspondence three years. So in January, 1920, we shall buy another set of cabinets and cart the 1918 files to the basement. In January, 1921, though, we shall throw away our 1917 correspondence and use the cabinets to replace the 1920 files. And so from then on we shall buy cabinets only as the growth of our business demands.

"Our original saving in the file department's salary expense by consolidating and reorganizing the work amounts to over $3,000 a year. Isn't that better than saving perhaps $150 by looking first at possible savings of equipment?"

Along the lines of equipment, there seems to be a strong tendency to consider only the late designs as desirable. "Sometimes," says the head of the filing department of a large manufacturing concern, "we find it profitable to use the 'old-fashioned' box file—the file that is made up to

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"Instead of filing everything in our cabinets and then sorting it all over before we transfer, we file these permanent records—contracts and the like—in box files. There are comparatively few of them; they are seldom referred to; but when we are in need of one we need it badly.

"In transferring we are able to handle the whole contents of a cabinet into a transfer case; we save the expenses of sorting and the chance that some of our permanent records will inadvertently find their way into the transfer cases and eventually into the paper baler."

Alphabetical Filing Is General

Perhaps the instances that have been cited here of other methods supplanting alphabetical filing may tend to give the impression that alphabetical filing is generally undesirable. On the contrary, it is the method most widely in use, and on the whole the most desirable. With adequate guides, the method enables the clerk to go straight to the desired correspondence, without recourse to indexes. Its simplicity is the quality that recommends it.

A variation sometimes used consists of giving a number to each section of the alphabet which has a guide. Thus Aa-Af may be number 1; Ag-Am, number 2; and so on. When a paper is filed in subdivision 2 it is marked 2. Then, if by chance it is misplaced in another division, the file clerk is sure to notice its number and replace it where it belongs.

The numerical method involves giving each paper—or folder—a number as it is put in the files. A card index is necessary; the chief advantages of the plan are its accuracy and its flexibility. As many cards as are desired may be used for each letter. The cards may carry the name, subject, and geographical location, and one of them be filed under each heading.

The automatic method is essentially the alphabetical method, with a numerical check. Letters are filed: first by name; and second by initial. Thus R. T. Adams is filed behind the guide Aa-Am, and behind the secondary guide R. A. R. Allen is filed behind the same primary guide, but behind secondary guide A. Each primary and secondary division has a number, shown on guide, on folder, and on a chart. Thus R. T. Adams goes in class 1-27; A. R. Allen, in 1-1.

The geographic plan provides, usually, guides for states, folders perhaps for cities arranged alphabetically within each state, and straight alphabetical arrangement of correspondents' names within each city. It is relatively expensive of operation, but gives remarkably satisfactory results to concerns whose work indicates the need for such files.

Subject filing is also widely used. Each subject has a folder, a guide, or a cabinet, according to its size. It needs indexing, usually. And it can be indexed alphabetically, geographically, or by a number of other methods.

Which plan best suits an individual business can be decided only by someone who is intimately familiar with that business. And the right decision is based on its specific needs, and on common sense.

Royal Bank Extends Its Sphere

Opening Several Branches in Cities of the South American Republics this Fall

Several interesting announcements have been made recently relative to the opening of branches by the Royal Bank of Canada in South America. The bank has opened in Rio de Janeiro, Brazil; Port-au-Prince, Haiti, and is arranging to

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Total Assets (September 30th, 1919)	187,000,000

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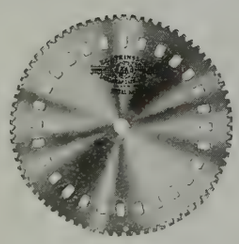


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open in Sao Paulo and Santos, Brazil; Buenos Aires, Argentine and Montevideo, Uruguay. Mr. C. C. Pineo, formerly manager of the branch at Havana, and who for the past four years has occupied an important banking position in Brazil, has been appointed supervisor of branches in Brazil, Argentine and Uruguay with headquarters at 68 William St., New York. The Rio de Janeiro branch will be managed by Mr. G. V. Long, formerly manager of the branch at San Jose, Costa Rico. The Royal Bank now has 67 branches in the West Indies, Central and South America.

Milling Profits Less

Canadian Flour Milling Companies Earned Slightly Less in the Last Fiscal Year

During the past month several of the big milling companies issued their annual reports. While earnings continue on a large scale, the totals reported fall somewhat behind those of the previous year. Thus the Ogilvie Flour Mills Co., Limited, showed profits from flour milling for the year ended August 31, 1919, of $649,777, compared with $832,910 for 1917-18. From other sources income amounted to $982,738 against $1,122,504 or a total income of $1,632,516 for 1918-19, compared with $1,955,414 in 1917-18. The past year's showing, while not up to the previous year, was yet better than the display of 1914-15, which had been the banner year up to that time.

The Lake of the Woods Milling Company, Limited, for the same period enjoyed profits of $756,616, which represented a decrease of $101,298 over 1917-18. Milling profits amounted to $547,152, a falling-off of $54,368. Here again, while the showing was less favorable, compared with the previous year, it stood well in comparison with earlier years.

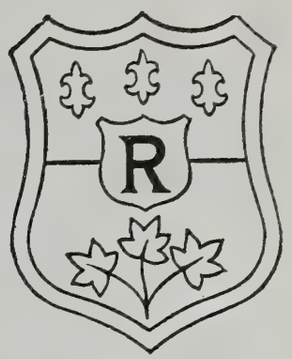
The St. Lawrence Flour Mills Co., Limited, reporting for the year ended August 31, 1919, had earnings of $245,594, which compared with $268,737 in 1917-18, but with only $171,071 in 1916-17.

The Western Canada Flour Mills Co. reported net income after making provision for depreciation, etc., of $437,986, which compares with $543,845 a year ago, and $418,022 in 1916-17. The president of this company, Mr. A. Kelly, attributes the decline in profits very largely to the effect of labor troubles, which necessitated the shutting-down of some of the mills.

Presenting the annual statement of the company to the shareholders of the Lake of the Woods Milling Co., Limited, Brig.-Gen. F. S. Meighen, the president, said: "Last year was an excellent one for the company, as both domestic and export business were good. From present indications, the export side will not be as good this year, and we shall have to depend largely upon our domestic trade. This is excellent at present, and we are taking every possible means to develop and extend it. I feel optimistic, however, as I believe that there will be a general increase in activity in the work of reconstruction and production. I expect, therefore, that every month will see a gradual return to more normal conditions of trade. I think there is no reason to fear for the future prospect of your company."

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The Factory Visitor's Welcome

There are certain objections to allowing too free access to plants on the part of visitors; but generally speaking the manufacturer who hangs up the "Keep Out" sign and locks the door on the secrets of his manufacturing processes and methods loses in the end more than he gains from so doing

By LEON I. THOMAS
(From "Factory")

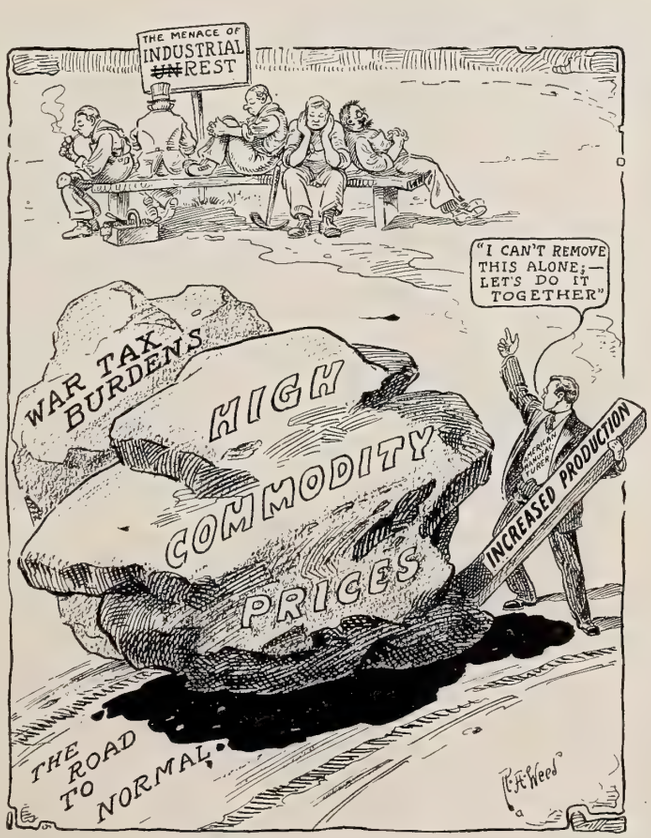
"WE were on our way home, the foundry foreman and I, from an inspection trip, during which we had visited a foundry in a neighboring city with a request to be shown through," a Canadian executive recently told me. Then he went on, "The superintendent of the foundry visited had, after reading our letter of introduction, and after some very apparent hesitation, said that they didn't make a practice of that sort of thing, but he 'guessed it would be all right.' He had then started us off as if he were training us for a cross-country walk and we were in at one end of his foundry and out at the other in very short order.

"The foundry foreman was sore and when we had settled ourselves comfortably on the train for the return trip, he proceeded to relieve his mind as follows:

"'Well, we didn't get much out of that fellow did we? He is a good example of the old-time foundryman who, fortunately for the foundry business, are getting scarcer all the time. He was afraid that we would carry something good away with us, wasn't he? No doubt we would have if he had been broad-minded enough to stop and talk things over with us a little bit as we went along. It's a sure thing though, that he could have gotten as much out of the discussion as we did and maybe a little more. Why there were several things which I noticed as we passed them on the fly that I know I am doing in a better and cheaper way than he is, and I would have been only too glad to tell him about them if he had given me half a chance.'"

Inter-factory visits by foremen and department heads have become so frequent in these days, and particularly since the value of co-operative effort taught during the war, that keep-out signs prompted by a keep-out policy are rapidly passing. An industrial engineer of one of the large tire companies outside of the Akron district said to me recently, "We in the rubber business used to have the name of being extremely secretive, and we were too. But now that is all changed. We are in close touch with all the rubber people in the Akron district. We develop a method that saves us say 15 cents on each tire. We soon go down to Akron and tell some of the people there about it. Perhaps we let them use it for a royalty of say five cents and it is more than likely that we come back with some other practical idea under a similar arrangement. We both profit."

As a general rule, the man who hangs up the "Keep Out" sign and locks the doors on the secrets of his manufacturing processes and methods against competitors and all comers generally, loses in the end more than he gains from so doing.



—From "American Industries"

Help Wanted!

There are, of course, exceptions to the rule and the question is debatable, and there is argument available enough on both sides to draw it out into as long and tedious a discussion as a time-killing political debate. Also there is a distinction which can be made between hanging up a general "Keep Out" sign on the factory, and locking the door against competitors and others who come to inquire about methods and to swap ideas.

There is, for example the excuse for the no-visitors rule that it is a check against the promiscuous and idle invasion of passersby and loafers. The free and indiscriminate coming of visitors and onlookers to any manufacturing institution brings with it both danger and interruption. The idlers standing by may get in the way and get hurt now and then, and through getting in the way and through detracting the attention of machine operators may be responsible for many accidents, and cer-

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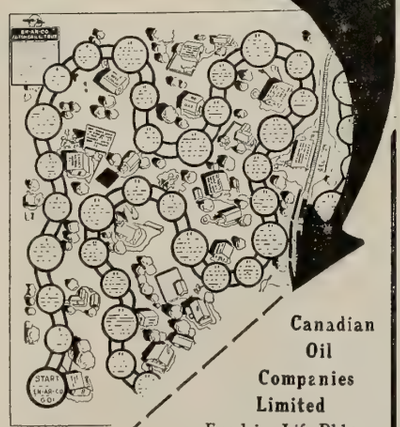
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I use..... lbs. Motor Grease per year — I use ..... lbs. Axle Grease per year
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Post Office ..... Prov..... — I own .....
(Make of Automobile or Tractor)

Be sure to give make of auto or tractor or game will not be sent.

Automobile am at present using..... Motor Oil. I will be in the market for more oil again about ..... and you may quote me on ..... gallons En-ar-co National Motor Oil.

tainly they divert the attention of the men at work more or less.

There may be now and then certain manufacturing secrets that it is essential to protect with the locked door, certain things that are not patentable or cannot be protected enough by patents to make the manufacturer of them secure. Yet these are but exceptions that prove the rule, for as a general thing a man gains more than he loses by the open-door policy. This is because he shows his competitor that he invites the confidence of the competitor and through it develops a fair exchange of ideas, which begets much better progress than is ever possible with each man going it alone and thinking out and wrestling with his various problems unaided by this exchange of experience and ideas.

In speaking of the interference of visitors with workmen there should be set down, however, a management advantage. It is entirely possible that the pride in an employee's work is stimulated. In fact, it has been a practice of the National Cash Register Company to put a notice on the shop bulletin boards headed "Visitors Expected To-day" and under this caption the list, which may include prominent outsiders or perhaps branch managers or other executives.

Then of course there's the advertising value of showing visitors about the plant, particularly if the product has a general distribution under a trade-marked name. No one would think of putting up a "No Visitors" sign on the plant of a nationally advertised food product. It would be suicidal. A sign reading "Our plant is not up to sanitary standards" could hardly be worse.

Treat Visitors Like Buyers

Why hasn't this same argument some force, if not to the same degree, in any factory? One leather-belting manufacturer apparently holds something of this view for he advertises: "The leather-belting business is full of secrets and the manufacturers can't give them away, you know. Nobody can get in. He might see a workmen sew up or glue a lap. But —with us it's different. Anybody can see what we do and everybody is cordially invited to go through our works." Then he goes on to suggest that you ask the other fellow how many "presses he has." He then uses phrases, "large plant, big volume," with the implied challenge, "come and see for yourself what's behind our product."

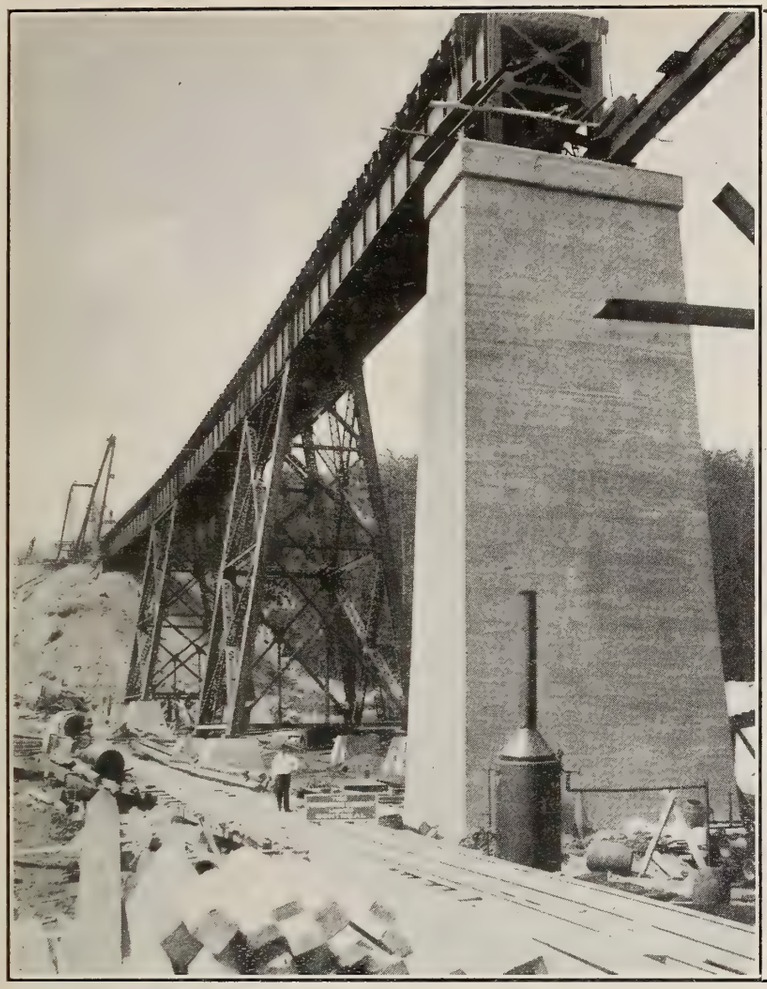
This is not mentioned as a suggestion to advertising copy writers but to emphasize one phase of the value of welcoming visitors to a factory.

Just by coincidence it was a belting manufacturer that expressed the following similar views on courtesy to visitors that builds good will. "There is still among us the business man who says he is too busy to see every Jack and Jill that comes along and that he hasn't time to run a 'rubber-neck' wagon around his plant.

"And really, it is a simple matter to make every visitor feel at home by showing him that his visit is a real compliment.

"Above all, let his first reception be pleasant. And don't keep him waiting—the seat in the ante-room grows hard after much sitting, while temper tugs at the leash. Just send out word when you will see him. If you are too busy, delegate a subordinate to pilot him around.

"In other words treat every visitor as if he were a buyer. He may be if good will counts for aught. And those who have taken pains to cultivate the good will of visitors have ample reason for continuing the practice."



THIS PIER was built through a greater depth of water than any other pier ever sunk in America—with one exception.

It is 102.3 feet below water level.

Such work requires unusual skill, resourcefulness and equipment—all characteristics of

THE FOUNDATION COMPANY LIMITED

ENGINEERS CONTRACTORS

MONTREAL SYDNEY

HON. FINLAY G. MACDIARMID,
Minister of Public Works

W. A. RIDDELL, M.A., Ph.D.,
Superintendent

TRADES AND LABOUR BRANCH DEPARTMENT OF PUBLIC WORKS

THE TRADES AND LABOUR BRANCH administers the following:

The Trades and Labour Branch Act
The Bureau of Labour Act
The Stationary and Hoisting Engineers Act
The Building Trades Protection Act
The Factory, Shop and Office Building Act
The Steam Boiler Act
Employment Bureaus
Investigation and Research

Employment offices are in operation in 35 cities and towns of the Province, and are the Ontario units of the recently organized "Employment Service of Canada."

Are you getting your help through the medium of the employment service, which you as a taxpayer are helping to support?

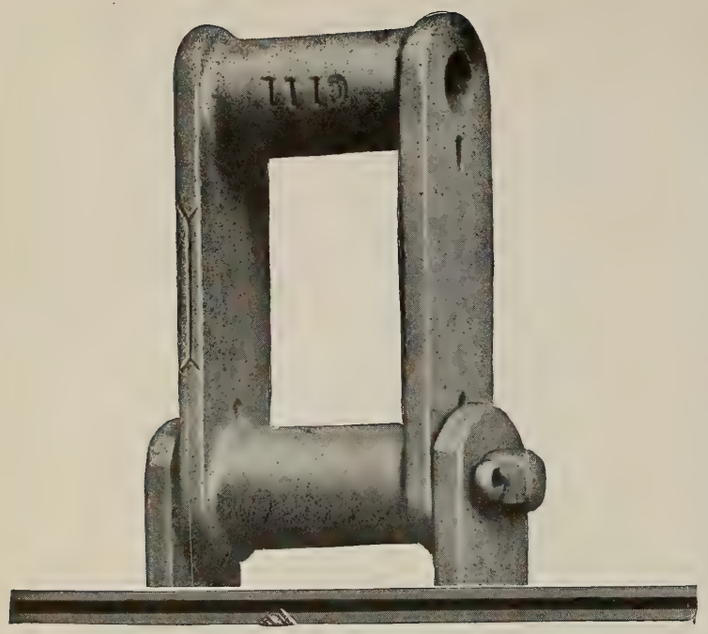
The value of these bureaus will increase in proportion to the extent to which they are used by employers.

NOTICE TO STEAM USERS:

At the last Session of the Legislature, the Act respecting Stationary and Hoisting Engineers was amended, said amendment requires that on and after January the 1st, 1920, all stationary steam plants in the Province of Ontario must be registered with the Board of Stationary and Hoisting Engineers. Application forms for this purpose will be forwarded on request. The boiler horse-power and other information contained in these application forms is to be used for statistical purposes.

A Registration Certificate will be issued to each applicant.

W. C. McGHIE,
Chairman of Board
15 Queen's Park, Toronto



"COMBINATION"

LINK-BELT

FOR ELEVATING AND CONVEYING

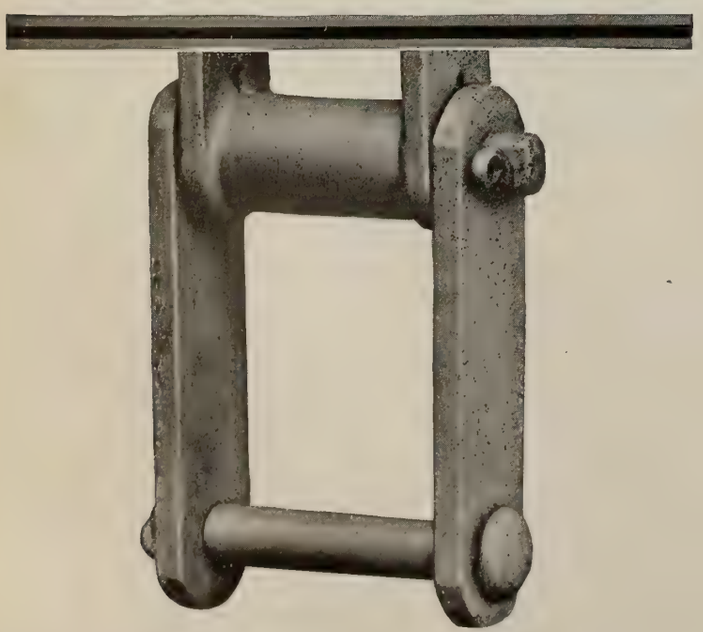
STRENGTH and low cost are combined in "C" Class Link-Belt. It is well-established in the fertilizer industry as a durable Link-Belt for elevating and conveying

Length of life in service is increased by preventing motion between the pin and the side bars which hold it. The pins are accurately fitted to the side bars. A flat portion is milled accurately at the end of the pin, fitting into a carefully broached hole in the side bar. Obviously this construction is superior to forged lugs or necks under the head to hold the pin in place

Write for Folder No. 306, which gives particulars regarding "C" Class Link-Belt. Our experienced engineers offer their services in solving your problems in elevating, conveying and power transmission. Write to the nearest office.

CANADIAN LINK-BELT CO., LTD.

Wellington and Peter Streets
TORONTO
Stock also carried at 1195 St. James Street, MONTREAL, Que.



BRINGING UP RECOMMENDATIONS

This writer is strongly of the opinion that, when recommendations are introduced at a conference, they should be presented in written form. Such proposals demand more attention than verbal ones and can be studied more carefully by those who will have to reach a decision about them. It also tends to accuracy.

By John R. Mason.
(From "Industrial Management.")

Very often the success of a recommendation depends upon the method the originator uses in presenting his idea and plans to the higher executives of his concern. This is especially true when dealing with personnel problems. Manufacturers as a whole no not think in terms of personnel, and cannot conceive that their employees can be secured by any method similar in its particular field, to the specifications they use for their raw material; nor that they can be handled by scientific laws or procedure, equally as vital as the methods by which raw materials are converted into the manufactured product.

A first step in any effort to better personnel should be a careful study of present conditions. This is absolutely essential, and it is also helpful to secure so much information as possible concerning the problem either by reading or visits to other plants. Except when it is necessary, in gathering information concerning a problem in mind, no mention should be made of it, nor of any plans or recommendations until the entire proposal is worked out. After condensing the proposal and arguments so far as possible, have them written out and a carbon copy given to each of the men with whom it is to be discussed at a conference. This is where the employment manager should remember to study the men with whom he is to deal, at the same time that he is working out his recommendations.

Cite as Many Examples as Possible

Following are the points to be included in a report of this nature: First, as analysis of present conditions and their resultant faults; second, a statement of what would be an ideal system; third, the proposed system with a statement of its weak as well as its good points. Believing that a start in the right direction is better than no improvement at all, the proposed system is not always the ideal one, but very often it may be the only possible solution, considering plant facilities and organization. In this report cite as many examples as possible of what other concerns are doing, especially those in the same line of business, to meet and remedy the problem that is to be discussed.

A written recommendation has the following advantages. It demands more attention than a verbal one and as each man receives a copy of it, there is less likelihood that it can be forgotten or side tracked by any one man. It also forces the person making the recommendations to be absolutely sure of his statements and less liable to exaggerate. It is not human nature for a person to be so optimistic in "black and white" as verbally. Because of a written recommendation a person is better able to command at the conference, on having thoroughly studied the problem, it is easy to anticipate many of the objections as well as questions that will be asked and draw up conclusive rebuttals in advance.

In the conference itself, merely give a short verbal statement of the conditions and recommendations, as every one present should have read his copy of the recommendations. Then let the others take the lead in the discussion. Get the work and arguments into the written paper. Except for answering questions or correcting wrong impressions, do not attempt to take part in any discussions but merely direct them on to ground where one is perfectly familiar.

By Product Coke

Hamilton Pig Iron

Open Hearth
Steel Billets

Steel and
Iron Bars

Open Hearth
Steel Sheets

Drop
Forgings

Quality

THE
STEEL COMPANY
OF
CANADA
LIMITED
HAMILTON MONTREAL

Service

Railway
Fastenings

Wrought
Pipe

Pole Line
Hardware

Screws & Nails

Bolts Nuts & Washers

Wire & Wire Products

WHEN 3 PER CENT. IS IN CONTROL

There should be some channel, through the development of industrial democracy, by means of which employers can bring about a better understanding with the great mass of their employees. It is said that just three per cent. of the employees of any concern are in a position to impose their will on the majority.

By George E. Holmes.
(From "Industrial Management.")

Estimates of the actual number of dissatisfied employees wishing to strike during any labor disturbance have been inside of the figure of three per cent., showing conclusively that this small minority has always been able to impose its will upon the greater majority.

This being the case, we ask ourselves why it is that the worker can rarely explain just why he is "out" except that he "followed the rest." Are these men like sheep that they follow the first leader that presents himself? And, are they so completely devoid of individual reasoning powers that they are incapable of thinking for themselves? or are they so cowardly they dare not oppose?

This would be a most pessimistic view of our laboring class and one unworthy of them. They have fought and died for a principle many times—a principle involving the good of the whole rather than one of personal interests. Is it not possible that in this very thought, of a principle, exists the solution of the entire "labor problem?"

Primarily, our first consideration should be with the laborers' viewpoint—just what does he think? We know that he believes his employer is his enemy, that he is selfish and entirely inconsiderate of others, that he looks upon his help as so many lifeless machines created for his especial benefit. He has this preached at him from every angle.

Few attempts have been made by his employer to refute this—he being devoid of any channel through which he could unbiasedly present his side of the question without it being taken as subterfuge, and the idea of "slipping something over on the workingman."

The three per cent. have dominated because they had something definite to offer the workers. Whether this was based on facts or not mattered little, it was a *something* and always help promise of betterment. They appealed to the emotional side of the worker and gave him to understand they were fighting for the principle of right and equality.

We have always believed that right will prevail. Is it not possible for the employer to make use of the lesson the three per cent. has taught him, and by creating a channel for complete understanding appeal to the great majority—the 97 per cent. showing them conclusively that their best interests are not embodied in a spirit of antagonistic competition but in closer coöperation?

If properly handled, industrial democracy puts into the hands of the 97 per cent. the truth of the entire situation, first. It educates them to an understanding of why they are not entitled to examine the books of the company. It shows them that the company has taken the risks, has supplied the capital, has created the organization and made possible the sale of the product. They understand and believe that the profits of the concern belong to the fellow who earned them. They come to realize that their additional earnings, beyond that established as a mean basis, must come from their own individual interest in assisting the management to reduce overhead costs, labor turnover, production costs, departmental losses, and in bringing forward ideas for general betterment; that any recommendation they wish to make will be accepted in the true spirit of a constructive suggestion and not in the light of a demand.

The Canadian Appraisal Company
Limited

DURING the past fourteen years we have appraised some four thousand properties, scattered all over the Dominion of Canada.

These include the leading and most representative plants of every manufacturing industry of the Dominion.

The valuations which we make comprise land, buildings, plant, machinery and equipment, tools, water powers, etc.; in fact, all the permanent working plant of any manufacturing or other industry.

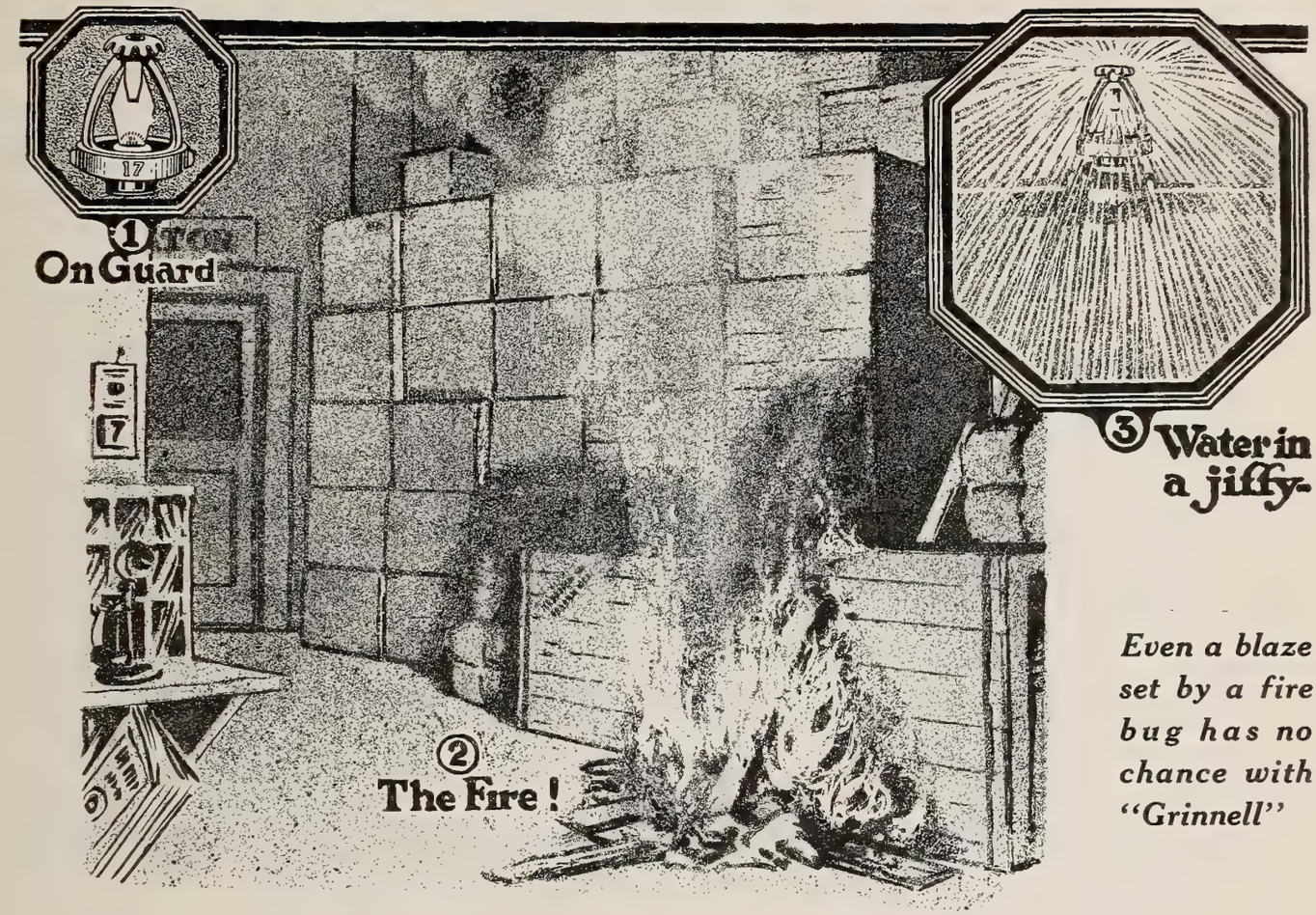
Our certificate, therefore, of values, in conjunction with the certificate of profits and liquid assets prepared by the accountant, furnishes a complete verification of a company's assets.

Correspondence Invited

Head Office: 17 St. John Street, Montreal

TORONTO
Royal Bank Building

NEW YORK
Equitable Building



Even a blaze set by a fire bug has no chance with "Grinnell"

Make a Date with the Fire!

IF you knew that a fire was soon to come that would disrupt and destroy your prospering business, you would make an ***appointment*** with that fire if you could.

You would ask to know the particular spot and the exact minute. You would be there on the dot.

You'd even have a dozen buckets of water handy to give your guest a cold reception.

You wouldn't be five or ten minutes late.

A Grinnell Automatic Sprinkler System, figuratively speaking, has an appointment with ***your fire.*** It is there at the exact spot, at the particular minute. It greets that fire with many buckets of water and, try as it will, the fire cannot disrupt or destroy your business.

Before the fire could be detected by the most careful watchman, "Click!"---the sprinkler head deluges the space below it with a resistless rain that smothers every trace of fire.

Your insurance man will tell you that the installation of a Grinnell system means that in a few years the saving in insurance premiums pays its entire cost and thereafter continues to pay big dividends as long as you are in business.

Important

Heretofore the underwriters have often required a tank supply for automatic sprinklers in addition to the city mains. Now, however, Grinnell Sprinkler equipments can often be installed without a tank.

Get the facts *For full information write*

CANADIAN GENERAL FIRE EXTINGUISHER CO.
LIMITED

W. L. HORN, Managing Director

TORONTO, ONT.—2440 DUNDAS ST. MONTREAL, QUE.—370 BEAUMONT AVE.
WINNIPEG MAN—910 SOMERSET BLDG. VANCOUVER, B.C.—1140 HAMILTON ST

SERVICE SPECIALISTS on G. F. E. Fittings, Steam and Hot Water Heating Installations, Power Piping.

WHY COAL SITUATION IS SERIOUS

Shipments from the Alberta coal fields are away below normal. In Eastern Canada, the supply from the American coal fields is being seriously affected by strikes and shortage of labor. Canada's Railway War Board declares it is the duty of every coal importer to release cars promptly.

(From War Board Bulletin No. 10.)

The popular idea that a "coal scare" was being worked up in the United States and in this country, in order to justify profiteering by the coal mines, made it necessary for this Board to hesitate before taking steps to urge Canadian shippers to lay in their coal stocks earlier than usual. Careful inquiry, however, along lines already taken by the American Congress, confirmed the view that the prospective shortage was real, and that Canadian consumers of coal should govern themselves accordingly.

Canada's main sources of coal supply are, roughly, four in number. The Pacific Coast is supplied from Nanaimo, Washington, and, to some extent, Alberta; the Prairie Provinces receive their logical supply from the Alberta and British Columbia mines; sections of Eastern Canada are taken care of by Nova Scotia fields; but the chief supply, and almost the entire amount of anthracite coal, comes from the various mining regions of the United States. As it is in Eastern Canada that the density of population and industrial development is highest, a coal shortage in the United States has very serious aspects for a great proportion of Canadians, and for a heavy percentage of their industries.

The coal supply situation on the Pacific Coast and in the Maritime Provinces may be dismissed as being reasonably satisfactory. On the Prairies a serious shortage exists. The fuel year in the Alberta coal-fields commences on April first. Last year, which was by no means a record year for coal-producing efficiency in the West, there had been shipped between April first and the second week in September 1,313,421 tons of "commercial" coal—as distinguished from coal for railway service. In the same period of the present year only 529,522 tons of "commercial" coal had been shipped. The volume of railway coal shipped was equally low by comparison.

This shortage on the Prairies was, and is, extremely serious. In pre-war years a certain amount of anthracite found its way to the Canadian West, via Ontario, from the American fields. This movement was cut off by war conditions last year, and this year will be very far short of the amount necessary to make up the shortage in Western coal production. The moral for the Western coal consumer is, therefore, to lay in whatever supplies he can obtain just as quickly as he can.

Eastern Canada, almost wholly dependent upon American coal, and particularly anthracite, is intimately involved with the present coal mining situation in the American fields. Strikes cut down the actual working time in important mines. Recently came the exodus of the foreigners, chiefly employed in these mines, overseas. Visits to their native lands, impossible during war time, became so popular as to leave many mines without enough men to do more than guard the property. That situation has slightly improved, but all the mines are running on low production.

One factor is to some extent in the hands of Canadians. Coal-cars are scarce. There are at this date (Oct. 1st.) 12,890 American coal-cars in Canada. Reports to this office show cars held in Canada very much longer than the necessary time for unloading. This sort of thing is grossly unfair to other coal consumers in Canada. Every Canadian importer should endeavor to release coal-cars with the minimum of delay.



CANADIAN MADE

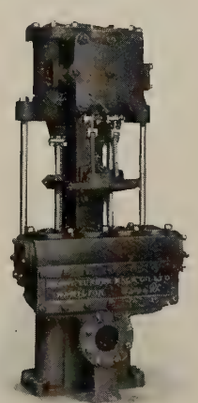
STEEL BARRELS

The modern package for storage and shipping of CANADIAN products.

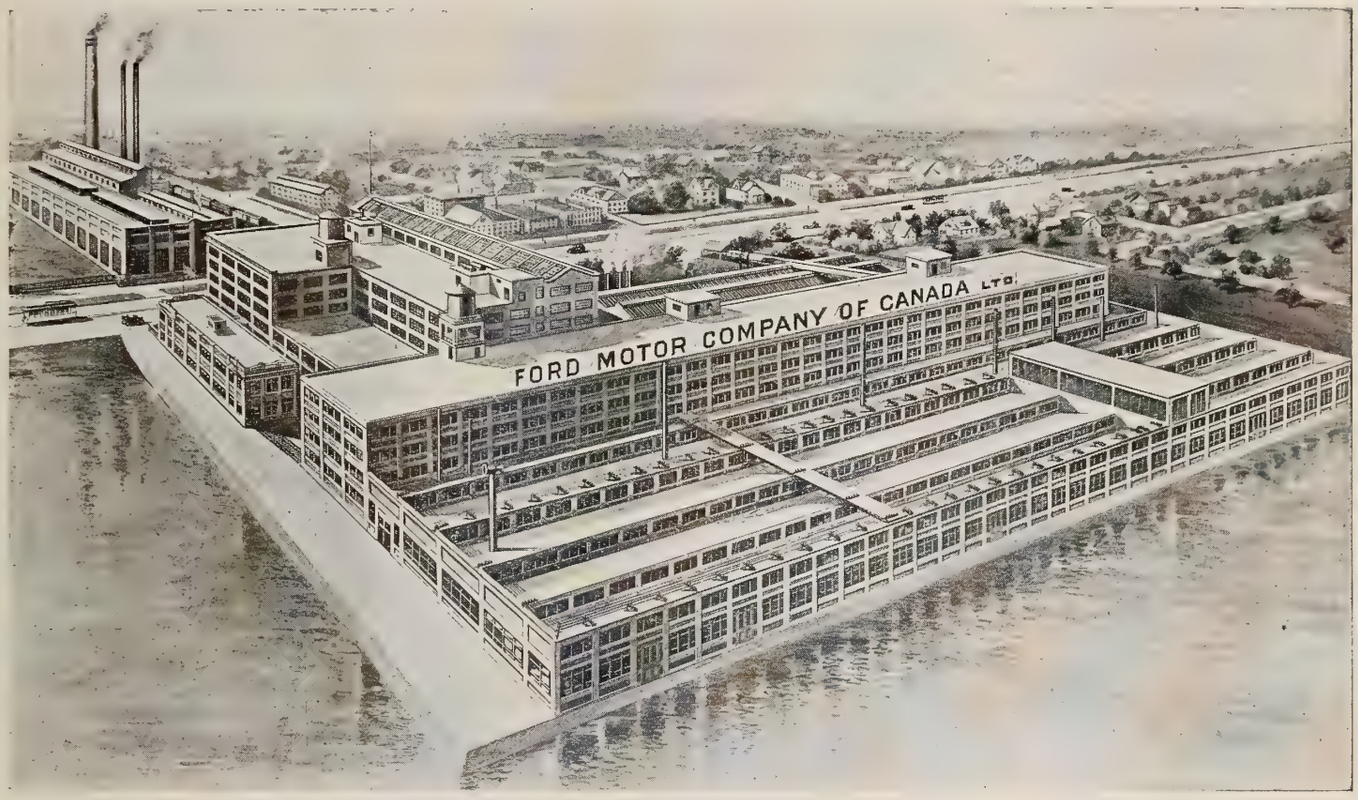
Can you afford those leaky, wooden barrels ?

SMART-TURNER PUMPS

STEM AAND POWER
VERTICAL AND HORIZONTAL



THE SMART-TURNER MACHINE CO. LIMITED
HAMILTON - - - CANADA



Ford Motor Co. of Canada Ltd.
Ford, Ont.

Built by WELLS AND GRAY LIMITED
Engineers and Contractors

WE have built the whole of this plant. We started work in 1910 and have continued without interruption for eight years. Our men are still working on extensions to this plant.

All buildings are permanent, fireproof and modern, reinforced concrete being used almost exclusively.

We have the organization and equipment to handle this work quickly and economically.

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Branch Office:
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Castor Oil

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We are direct importers of vegetable oils. Can make immediate delivery of Cocoanut and Castor Oils, English Degras and English Linseed Soap.

DOMINION OIL COMPANY
LIMITED
Royal Bank Building
HAMILTON - - ONTARIO



For Full Information Write for Catalog I
Canadian Mathews Gravity Carrier Co., Ltd.
PORT HOPE, ONT.

EDUCATING FOR CO-OPERATION

Educational work is a necessary part of any plan adopted to promote co-operation between employer and employee. Wrong opinions must be counteracted and employers must see that the attitude of employees is such as to enable them to co-operate successfully in the general plans of the business.

By E. O. Davis.
(From the "Textile World Journal.")

Whatever plan you may adopt as a means of promoting co-operation, you will have more or less educational work to do. Some of your employees may be in a mental rut, unable to understand the need of working with you. They may not at first construe the real meaning of any effort you may make along co-operative lines.

The nature of the educational work you must do depends upon the trend of thought of your employees, and right here is where your work must begin. Believe what you may, and practise what you believe if you will, but your progress will be slow unless you deal individually and collectively with the minds of those composing your organization. It is their attitude toward you and your business that you must handle if you would have your employees co-operate with you in making the business a real success.

Your old employees should have a fairly good estimation of you and your business. If they have not, it must be largely your fault. But the new ones will need special attention until they become established in your organization. When a person enters your employment, he either has the right opinion of you and your business, the wrong one, or no opinion at all, but he undoubtedly has some kind of an opinion bearing on the relation of labor and capital. Whatever this opinion is, you and your business are likely to be judged accordingly. If the opinion is an equitable one and the worker has the right sort of ambition, he should easily become a co-worker. If he has no opinion at all, then he should be so instructed in business principles, that when there has been an opinion formed, it will be a just one. But if he has a wrong opinion, it must be destroyed through a right understanding and the practice of business democracy.

In teaching the principles that promote co-operation, nothing is more essential than patience on your part. You must remember that the human mind is usually slow to turn loose the old and grasp the new, and it certainly must have something new to grasp before it can be expected to turn loose the old. A man in this respect is very much like being up in an airplane; he cannot very well get out until he has something besides the air to support him. Neither can a man turn loose of an old idea until he has a new one to catch on to.

We must be sure that our new ideas are more practical and elevating than the old before we offer them to others, and then they may be refused by some. People do not always want to advance. In studying the lives of some people, one is reminded of a body of water, whose only incentive for action seems to be to reach a lower level. This is why there is so much room at the top.

Get your employees interested in something worth while and keep them interested in it. Interest promotes effort. Better start with yourself. Get interested in your employees. Study their desires and needs and meet them so far as is possible and necessary. If you are not already in business, don't start unless you have enough capital to finance some kind of real welfare work. Don't become discouraged if you find an indifferent attitude among the few. Whatever position one may take in anything, it will be the result of conclusions reached by reasoning according to his understanding in the matter. If workers are reasoning along selfish and erroneous lines, and we all do, educate them out of it.

Canadian Carbonate Company, Limited

Offices and Factories:

HALIFAX, MONTREAL, TORONTO

WINNIPEG, VANCOUVER

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Manufacturers of

"CROWN BRAND" LIQUID CARBONIC ACID GAS

HOYT METAL CO.

Manufacturers of

BABBITT for every use
TYPE METAL
SOLDERS—All grades in bars, pigs or wire
LEAD PIPE, LEAD TRAPS and BENDS
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Factories and Offices:

TORONTO

EASTERN AVENUE AND LEWIS STREET

Factories also in LONDON, NEW YORK, ST. LOUIS, BOSTON

WEST MAY GET A NEW INDUSTRY

Experiments are being carried to a successful conclusion which will prove that straw from flax grown for linseed purposes can be utilized in the manufacture of binder twine. This discovery contains large possibilities for the development of an important industry in Western Canada.

(Public Service Monthly of Saskatchewan.)

Mr. R. J. Hutchinson, the flax specialist at the Central Dominion Experimental Farm at Ottawa, has been making some rigid tests of a new process of making binder twine from flax straw grown for linseed purposes. He has contributed the following report on the matter, from which it is very pleasing to note that in his opinion "binder twine and coarse cordages can be manufactured from the fibre of flax grown for linseed purposes only, and can be placed upon the market with profit to both the consumer and manufacturer." The utilization of this process will mean the saving of a vast sum of money annually, which is now going out of the province, by Saskatchewan farmers who use close to twenty million pounds of twine every harvest.

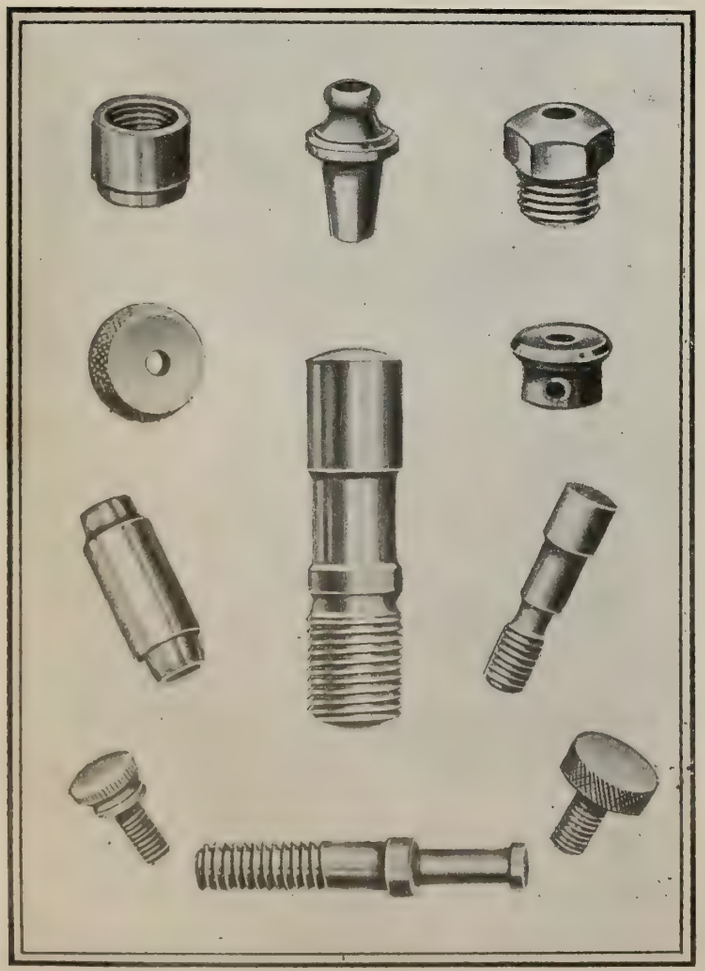
The six divisions of Mr. Hutchinson's conclusions should be carefully read, and it is well to note that a machine has now been successfully devised which removes the main difficulty in the manufacture of flax twine, namely the threshing of the flax without injuring the stalk.

In *The Public Service Monthly* for the month of February, 1918, there was an article upon the above subject which gave the results of an experiment conducted under the auspices of the Saskatchewan Provincial Government with fibre that had been extracted from flax grown in Saskatchewan for linseed purposes only and treated by special process, the property of the Flax Fibre Development Association of Regina. The manufactured articles resulting were binder twines and commercial cordages in large ranges of good quality and appearance and of normal strength. These results were somewhat remarkable, for it had always been considered that western flax was useless when looked at from a fibre standpoint. The mechanical extraction of the fibre and the chemical treatment were carried out in Saskatchewan, while the preparing and spinning was undertaken by a large and well-equipped factory in the United States.

Since the publication of this article the whole matter has been the subject of much attention by both the Saskatchewan Grain Growers' Association and the Federal Government of Canada, and the results as published seem to contain large possibilities for the development of an important industry in the West and the utilization of one of Canada's natural products.

During 1918 the S.G.G.A. undertook to have carried out under their direct supervision a series of experiments with the process to prove the *bona fides* of the claims put forth, and to ascertain what further problems remained to be solved before the utilization of this western fibre could be considered as a possibly successful commercial undertaking.

The quantity of fibre treated and spun under the control of the S.G.G.A. was larger than that treated and spun in the first instance. The results obtained were highly satisfactory and were practically on a par with those already described in the article above referred to. After treatment the fibre passed through the preparing, spinning and twisting machines with a facility equal to linen jute or hemp tow, and with even greater facility than some of the stock that the machines were then working. All original figures were borne out except that there was a slightly heavier loss in working and the yarn spun was 4½ lea instead of 5 lea. This is to



Stamped Metal Parts

AND

Automatic Screw Machine Products

Accuracy in every detail of a given piece of work is equivalent to perfection in the finished product. Our expert workmen handle each proposition in the same efficient manner, giving it the full benefit of their experience and ability, while our modern equipment enabling us to produce large quantities in a short space of time gives us an opportunity of quoting extremely reasonable rates for high-grade work.

Let us quote on your next proposition and convince you.

CARON BROTHERS

CARON BUILDING

233-239 Bleury Street, Montreal

BATHURST

SPRUCE AND WHITE PINE



We draw our supplies from timber limits covering over 2,500 square miles. Our plant is complete in every particular and includes fully equipped planing and resaw mills.

Our shipping facilities are unexcelled. The above cut shows the Steamers "Redcap" and "Kyleakin" loading Spruce Deals at our No. 2 wharf at the rate of 650,000 feet per 10-hour day.

KRAFT AND UNBLEACHED SULPHITE PULP

Our output of each is fifty tons daily. Are you on our mailing lists for the periodical bulletins we issue. If not, you are invited to send us your name and address. By so doing you will be kept advised of all the exceptionally good offerings we make from time to time.

BATHURST LUMBER CO., LIMITED
BATHURST, N.B.

McClary's DOMINATING PRODUCTS

To a few are unknown.

To many are never forgotten.

To discriminating housewives the obvious selection.

To observing husbands the cheering factor.

To prospective purchasers a definite association with quality.

To the preceding generation still performing their functions.

To all—definite satisfaction when bought.

Write us so that you may use us

McClary's

London, Toronto, Montreal, Winnipeg, Vancouver, St. John, N.B., Hamilton, Calgary, Saskatoon, Edmonton

be attributed rather to the equipment at disposal than to the quality of fibre. The spinning end of the experiment was carried out by the only cordage works there is in the Dominion and the equipment is not to be compared with that of the factory which undertook the original experiment.

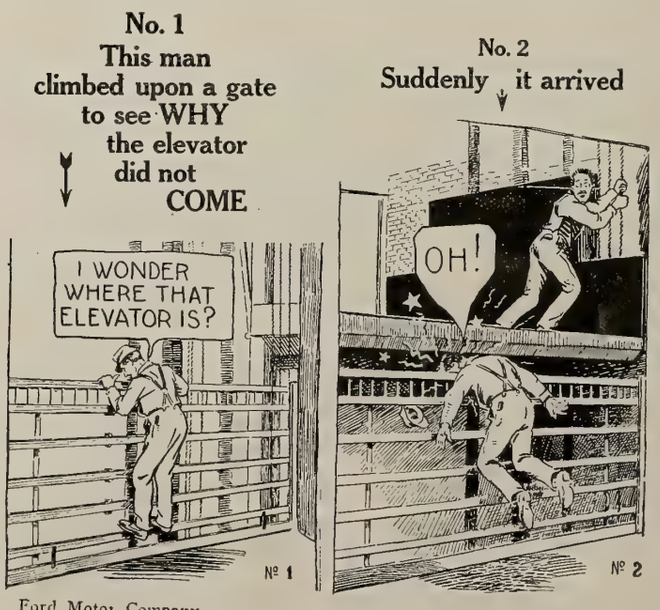
On the other hand it was proven that the fibre taken from flax that had been threshed with a toothed cylinder would not give the required results. Thus a serious problem arose, as there was no machine extant capable of threshing seed flax without injury to the straw.

On the recommendation of Messrs. Maharg and Musselman, the Federal Government undertook to carry out through the Department of Agriculture experiments which would embrace every phase of the process from the growing flax to the finished twines and that upon a large scale, as this would eliminate the possibility of any special manipulation of small quantities, and confine every step of procedure to being carried out by machinery in productive quantities. It would further test the capacity of every machine brought into operation.

This experiment, while it might not prove the actual cost of production, for specialized buildings, equipment and machinery have not been available, it would nevertheless form a sound basis upon which calculation and estimate could be made.

The experiment is now reaching its final stages and already permits of a general forecast being made.

1. Threshing can be done without in any way injuring the stalk of the flax. A machine was produced and flax was efficiently threshed in the factory. This machine has now been adapted for outdoor threshing, and will be tested in the fields.
2. Decortication or separating the fibre in its crude state from the flax by mechanical means gives the calculated amount of fibre per ton of straw.
3. The chemical treatment in quantities has been done more rapidly and economically than was estimated to be possible.
4. The preparing and spinning give the results already known, and at the price estimated.
5. The manufactured products are equal in quality and appearance to those produced on previous occasions.
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DOUBTFUL ABOUT PROFIT SHARING

President of the Link-Belt Company in a recent address before the Illinois Manufacturers' Association says profits of average business are rarely sufficient to make a worth-while distribution. He is also rather dubious about feasibility of taking labor into partnership. Here follow some extracts from his speech.

By Charles Piez.

One suggestion to improve the employment relationship has been profit sharing, and new experiments are being tried at every hand. I am highly interested in the results, but as a means of allaying unrest and satisfying the worker, I am afraid most of these experiments are foredoomed to failure. The schemes that succeed will succeed because of the personality of the man behind them, and not because of the merit of the schemes. Profit sharing as it is usually applied, involves payment to the deserving and the undeserving; to the ambitious, energetic, useful employee, and to the laggard who succeeds in just getting by. It is apt to result, therefore, in general dissatisfaction, and a lowering of the standard of efficiency. Many plans have been tried, but a small fraction survive. The profits of the average industry are rarely sufficient to make the amount distributed to the individual large enough to stimulate and retain his interest, and only exceptional industries like that of Mr. Ford can continue to make really effective distribution. I like Mr. Ford's plan, for it consists in paying high wages and insisting that the employees earn them. My own conviction is that the best system for profit sharing consists in the opportunity for earning liberal wages for a standard amount of work performed, and that extra effort and output or extra quality, ought to entitle the man to earn wages in considerable excess of the prevailing rates. This gives the man an immediate additional return on work that is within his own control, and does not force him to wait until the end of the year for an indefinite share in an uncertain profit.

The idea of taking labor into partnership is offered as another remedy. It sounds alluring, but, like profit sharing, is another one of those schemes it is difficult to make workable and permanently effective. In the first place, the average industry, with an investment of, say, $2,000 per employee, rarely earns in normal times as much as $1.00 per employee per day. When the return for capital invested is set aside and provision is made for necessary additions and extensions, there is little or no cash to divide, and there is general disappointment among the partners. If any division is made, it must be made in stock, or its equivalent—it can't be made in cash.

And yet I am strongly convinced that a real pecuniary interest by the employees in an industry is a good thing, provided that interest is paid for. Partnership must carry with it a sense of responsibility in the pecuniary success of the venture, and cannot be helpful or effective if it represents an association in which one partner is purely interested in securing all he can for himself, without thought of the continued strength and success of the venture. I am in favor of opening up the opportunity for acquiring a stock interest in an industry, to every workman whose length and character of service justifies it, and who has the nerve to assume the responsibility to pay for that interest in cash. And when the stock acquired by workman and employees reached a proper volume, I would gladly welcome a representative of their choosing, as a member of the Board of Directors. Representation on the Board, except on the basis of stock interest, would not and could not bring about the purpose which the proponents of this suggestion have in mind.



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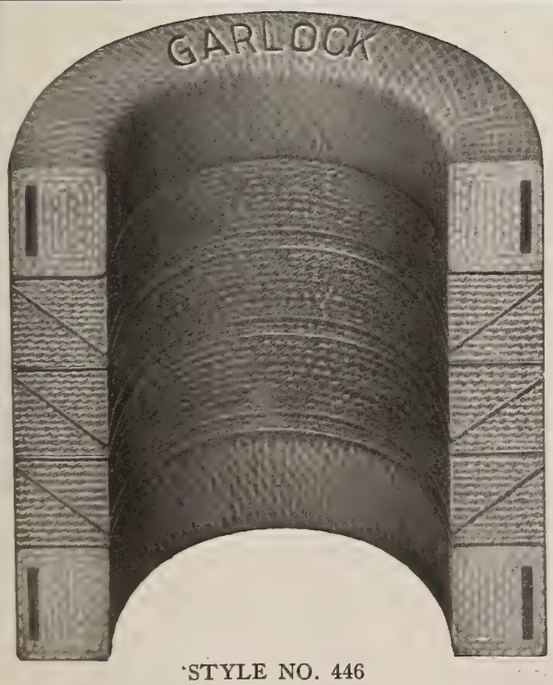
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WELFARE WORK IS NOT CHARITY

Employers work on an entirely wrong basis when they regard welfare work as a species of charity. Nor should they take it up as a sort of hobby. There is nothing substantial in such methods and they will not stand the test. They are never lasting and their failure brings discouragement.

By E. O. Davis.

(From "Textile World Journal.")

There is a need of a certain kind of welfare work among the employees of all business establishments. But not in the form of charity. To provide such necessaries as comfortable working and housing conditions, also recreation facilities, is not charity. These are essentials, just as food and clothing are, and all of them are practical means of building up a spirit of co-operation. In fact, to provide them is co-operation on the part of the employer. Sharing profits, when practical, in the form of a dividend is a splendid plan, but every man or woman should receive according to his or her earning capacity.

I do not advocate any scheme that would take from the employer his personal rights in the operation of his own business. Nor do I believe in the distribution of industrial earnings except in the form of a fair compensation as a reward for honest effort and a legitimate profit on financial investment.

I never did believe in a mere fad or some sort of pet hobby as a means of building up a spirit of co-operation. There is nothing substantial in such methods. They are not lasting because one is likely to become tired of and disinterested in them, and the channel through which you had intended to teach your employees has vanished and you are worse off because of your experience, unless it has helped you to think along more practical lines. This, however, is not always the case, because a failure in the first attempt too often discourages the employer, also the employee, and leaves a feeling that, after all, the only thing worth while is the object of making money for one's self. But this most certainly is a mistake, because the hope of financial gain as the principle incentive for action can never develop the higher ideals in man, and the salvation of any business, or of the world in fact, is dependent upon the human race understanding and putting into practice these higher ideals.

There are some who still hold that all compensation should be included in wages, in which instance a man can invest his earnings according to his individual needs. The main objections to this plan are that it prohibits civic improvement and fathers selfishness. It puts industry back to the sweat-shop basis and continues to crown the dollar as lord of all. Proper environment is just as essential for an individual business as for a community, and money spent for such purposes should be regarded the same as taxes paid into the treasury of a commonwealth, a large per cent. of which is usually used for civic betterment.

Money taken from the employees' wages (if you wish to term it as such) and used for industrial civic improvement is a financial investment in the business for the employee. It gives him a personal interest in the business that will inspire individual effort and promote a general good feeling for the welfare of the business, the result of which will be better efficiency, and better efficiency means larger earnings and still higher wages, so that in the end you have your desirable surroundings, co-operation, contented employees, good wages and larger profits for the stockholders. Isn't this what we really want and need?



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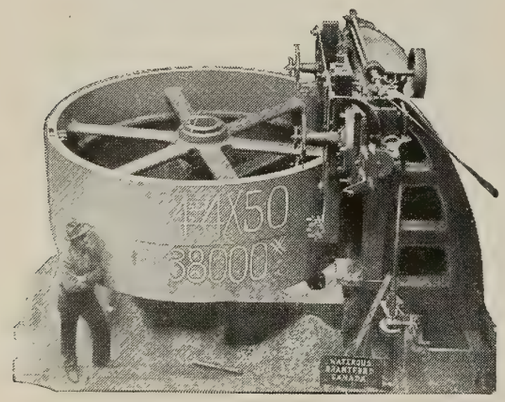
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THE RIGHT ATTITUDE TO LABOR

Co-operation between employer and employee is declared by this writer, who is secretary of an American hosiery company, to be one of the most essential elements in any industry. Anything that will tend to build up this co-operation should be regarded as necessary to the success of business.

By E. O. Davis.

(From "Textile World Journal.")

Everyone is familiar with the Bible story of the young man who inquired what he must do to be saved, and, when told, went away sorrowing because he was required to adopt a new plan of salvation. From the description of this fellow, one would infer that he was a modern manufacturer or business man.

If our present business methods were entirely practical we would not need a change. Judging from the present state of affairs in some localities, it would seem that we are not using the right principles and that our entire system is wrong. This, however, is not altogether true, and besides, the customary usage of present methods makes it unsafe to adopt any radical changes. But this does not prohibit a man from doing things differently, provided he does not go beyond the reasoning faculties of his co-workers, or undertake some project which he has not the time nor the funds to carry out.

There are many factors in the make-up of any business; some are more important than others, while some few are indispensable. Of the more important, co-operation between employer and employee is one of the most essential elements in any industry. It is also one that has possibly been neglected more than any other, not so much from our lack of having seen the need of it, as on account of our inability to formulate some practical means of making it a reality. All seem willing to admit the need of a better understanding between labor and capital, but how many are willing to take the time and trouble to work out some practical, unselfish plan that will be most suitable for his individual business? Individual your business is, and individual your organization must be, but the purpose and aims of those composing an organization should never be individualized at the expense of the business as a whole.

Anything that will help to build up and maintain a lasting spirit of co-operation between employer and employee must be regarded as necessary to the success of any business, and a business cannot be a complete success unless employer and employee work for each other's interests. The maximum success may be derived from any co-operative plan by intelligently choosing between the things we would like to do and the things most practical for that individual business.

Men have told me that they had used their utmost efforts to get their employees to co-operate with them. But did they use the same effort to co-operate with their employees? Was it co-operation they were really after? Was it their earnest desire to pool their assets with those of their employees in a common investment for the purpose of making the business a success for all? And were they willing to share the profits of that business with their employees in proportion to the investment of each, be that investment either money or labor? If not, then why call it co-operation at all, when their only purpose was to increase their own earnings? Give your employees credit for being able to distinguish between selfish and unselfish plans which you would have them adopt. If you are practising selfishness yourself, you are teaching it to your employees. You are training them to work against you and your interests as well as their own.

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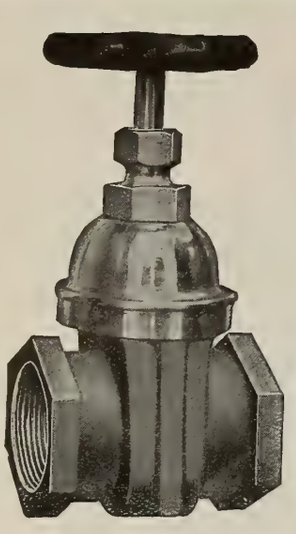
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AERIAL FORESTRY COMES TO STAY

Flights made this summer in the St. Maurice Valley demonstrate efficiency of the seaplane in determining location of forest fires and providing prompt means for extinguishing them. The moral effect of having a plane suddenly appearing over a fire just started will be of value as a deterrent.

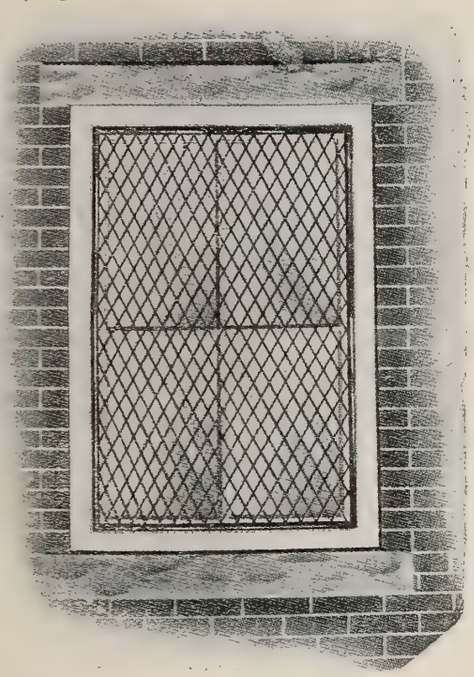
(From the Laurentide "Digester.")

The aerial service inaugurated by the St. Maurice Forest Protective Association in co-operation with the Department of Lands and Forests of Quebec and the Dominion Department of Naval Affairs has now been carried far enough to give some indication of its probable value. Owing to difficulties in making an agreement between the Government and the Association, it was the middle of June before the seaplanes were released at Halifax, and by the time they were overhauled and ready to fly, July was at hand. The two successful flights made by Lt. Graham from Halifax, demonstrated their value for long distance work and reliability. Immediately on arrival at the base on Lac a la Tortue, near Grand-Mere, flying commenced and trips were made to all parts of the St. Maurice Valley. Some fires were seen and their location and size accurately determined by flying over them. It was found feasible to transport a Johnson fire pump and hose to any crew needing it. A fire anywhere in the 16,000 square miles could be reported inside of two hours, and in another two hours a pump could be on the lake nearest the fire. The moral effect of having a plane suddenly appear over a fire just started and the possibility of detecting the person who set it will certainly be of value as a deterrent.

For transporting persons who have business at different points in the woods the planes are invaluable. The Manager of the Association could be taken within two hours, or two and a half at the most, to any part of his district. The Superintendent of Logging Operations could go to any part of his operations, have time for inspection and return the same day. Men who were injured in camp or taken ill could be brought out, in the utmost comfort, and taken to a hospital. Unfortunately the men who can benefit by the use of the planes have not taken advantage of them, although it is hoped they will do so before the season is over.

For exploration work they are invaluable. Five hundred square miles were covered and notes made of the location of burns, lakes, timber, etc., and some photos taken in two hours, and the writer came back with a far better idea of the country than if he had travelled over it for two months. Types of timber are easily distinguished. Areas of burns can be located; one can tell whether the burns are beginning to restock or not. Anyone wanting to buy a piece of timber land could tell in an afternoon's flying whether it would be worth purchase or not. The manager or any other official of a timber holding concern could, in a few days' flying, learn more about the location and value of his timber than he could get in volumes of reports.

In flying over forested land the different kinds of trees are quite distinct, especially as the leaves turn. Lakes are very dark in color, almost black, and shoals and rocks can be plainly seen. Sandbars under water in the rivers are yellowish and plainly visible. There is not much sensation of speed unless you watch some point directly below you or which you are approaching. All the details of the terrain are plainly visible. Burnt areas show plainly, pure stands of spruce and balsam show up so that the individual trees can be counted.



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EFFECT OF PAMPERING WORKMEN

Dealing editorially with the National Industrial Conference, the Farmers' Advocates points out that prices are high because raw materials are scarce and raw materials are scarce because conditions have been made more agreeable for workmen in the factories than on the farms. This is an interesting commentary from the agricultural standpoint.

(From the "Farmers' Advocate.")

We have no intention at this time of discussing all the features of the conference. It immediately arrived at a harmonious decision that labor legislation should be uniform throughout the different provinces. Then immediately there were differences of opinion as to collective bargaining and hours of labor. The labor delegation stood out strongly for an eight-hour day and a 44-hour week. At this point, Hon. Chas. Dunning, Minister of Agriculture for Saskatchewan, and a member of the third group, drew attention to the fact that an eight-hour day on the farm was impossible. In fact any set hours of work on a farm are impossible. If a legal eight hour day was set it would vitally affect agriculture in an adverse way was the substance of Mr. Dunning's statement to the conference.

It is about time that those who may be included in organized labor and those who may be included in organized capital and industry came to a realization that to-day's problems cannot be settled by them getting their feet together under a table. The majority of people in Canada come entirely outside of both these classes combined. It might come within the possible that these two classes could settle their differences as to hours of work per day, working conditions, wages or share of profits, and have legislation passed that would include all this. What is more, the two parties might live up to these conditions and yet it might prove a national calamity, for outside these two classes comes agriculture, the first industry of the nation, which popularly is not even considered an industry, and there are a hundred other professions and industries also not considered that, with agriculture, make up the greater part of Canada's population. Our so-called industries and our organized workers are in some ways taking themselves too seriously. Food prices and clothing prices are not alone high because of profiteering. They are high because there is a shortage of the raw commodities that make up our foods and clothing, and there is a shortage because conditions have been made more agreeable for our workmen in the factory than it can be made on the farm. Not only has labor on farms left for the city, but farmers themselves have left to join the ranks of labor in the city. Even improved agricultural machinery that reduces labor is failing to keep up the needs of food. The fact that the prices of raw food and raw materials for clothing have gone up has taken few men to our farms, because the cost of producing these materials has increased proportionately.

We wish to state merely that no permanent solution of the disputes between capital and labor can be arrived at without placing the matter before every class in the Dominion. The Parliament of Canada is the proper place to carry on a discussion of the matter rather than a conference of picked delegates. However, the present Parliament is largely made up of professional politicians. We hope that our next Parliament will be more truly representative of the people. We are satisfied at least that agriculture will be much better represented and that policies affecting industry will more nearly meet its needs.

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While that extremely useful mineral, asbestos, is widely distributed, the deposits as a rule have little value except in the province of Quebec. Here a fine variety is found and mining asbestos has become an important industry, the province being to-day the world's chief source of supply.

By W. F. Sutherland.
(From "Scientific American.")

At the present time the Province of Quebec is the world's chief source of asbestos, the production in other countries being comparatively small. Russia is the chief producer outside Canada, the asbestos being mined in the Ural district. Before the present trouble in Russia most of the Russian asbestos was either used locally or exported to Germany, a little reaching the United States.

Geographically asbestos is a widely distributed mineral, although many of the deposits are of little value commercially. The United States has many deposits, Newfoundland has large deposits of good quality and Italy was formerly a large producer. China, Siberia, Australia, New Zealand and South Africa have also deposits which may be of use in the future. The South African fibre is of very good quality and the mines are being rapidly developed.

Two varieties of asbestos are met, amphibole and chrysotile. The amphibole or hornblende asbestos is much inferior to the chrysotile, having none of the fineness of fibre, the tensile strength, the elasticity nor the flexibility of the chrysotile. It also differs in chemical composition from the chrysotile in having lime associated with its magnesia, while the chrysotile is a hydrated silicate of magnesia. The Canadian deposits of asbestos are of the variety known as chrysotile and it occurs only in a serpentine rock to which it is essentially similar in chemical composition. Serpentine in itself is very similar to peridote, a rock in which it is usually found, differing only in being hydrated.

Open-pit mining or glory-hole work is used throughout the Quebec district, the mines running sometimes to a depth of 300 feet. Underground work is carried on at some of the mines during the winter months, and searchlights have been employed to render night working possible. Some of the mines separate the barren rock from the asbestos-bearing portion in the pit, and each is loaded into separate boxes. In most, however, the hand separation commences after the rock reaches the surface by means of the aerial cableways, or by other means.

After the hand separation the barren rock goes to the rock pile and the rock which will afford crude asbestos is taken to the cobbing sheds where it is separated by hand and the asbestos bagged. The remainder, usually 35 per cent. to 70 per cent. of all rock handled and which contains asbestos requiring mechanical separation, goes to ore bins or in some cases directly to the mill for concentration. For the first fifteen years after the opening up of the asbestos mines, cobbing was the only means of recovering asbestos, but in 1893 the process of mechanical concentration now used, with but slight modifications, was devised.

Practically all the mills use the same system for the separation of the asbestos, and considerable ingenuity is displayed in its carrying out. The milling practice consists essentially of coarse crushing, drying and alternate fibre crushing and screening. At each screening the asbestos then liberated is drawn off through overhead pipes by suction bands and collected in settling tanks. When thoroughly screened from dust and classified according to length of fibre by rotary screens the different grades pass to their respective storage bins or are bagged for the market.



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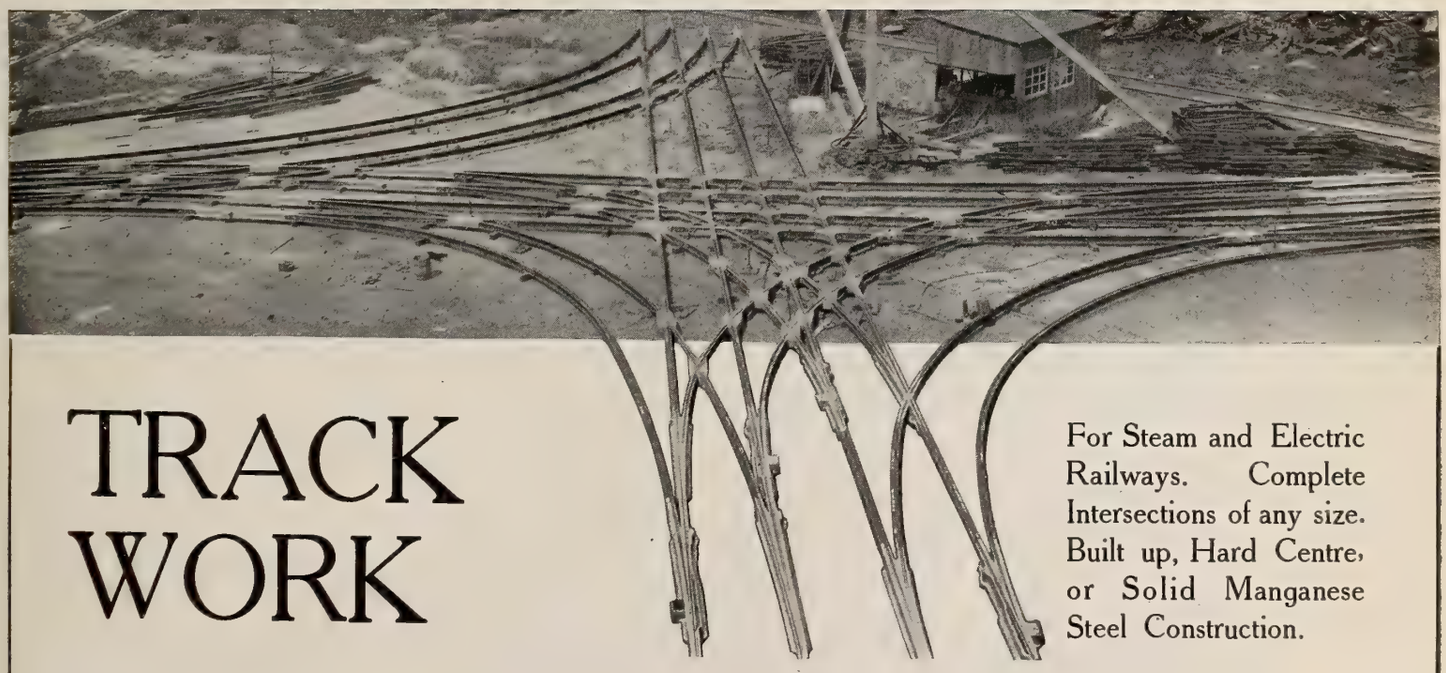
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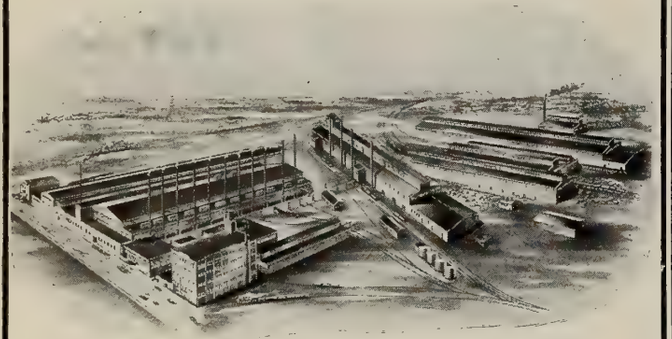
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GOING BACK ON THE STOP-WATCH

An industrial expert, who has always advocated the use of the stop-watch in studying operations, changes his opinion and declares that good results can be secured from industrial management without employing a stop-watch at all; the greater part of the inefficiency being attributable to the shortcomings of management.

By C. E. Knoeppel.
(Reproduced from "Scientific American.")

In writings and addresses in the past, I have advocated the use of the stop-watch. I have used it in my professional work. I have instructed others in its use, and have had others use it for me. Some four years ago, however, I began to see evidences of its unpopularity in industry, and began to study the entire situation with the view to getting along without it. Since that time the organization of which I am head has made no use of the stop-watch in its regular work of eliminating industrial inefficiency. We see no use for it in the future, in so far as we are concerned, for excellent results have been and can be secured without its use.

The inefficiency almost universally met with in industry, which is the one factor responsible for the high prices we are now fighting, is not all due to the inefficiency of the worker by any means. As a matter of fact the *greatest part of the inefficiency found is due to the shortcomings of management.* Unless a plant is properly organized; unless there are reliable records on which to base conclusions; unless production is properly controlled; unless working conditions and facilities are what they should be, workmen cannot work efficiently, whether they want to or not.

Idleness in equipment; waste in floor space; inadequate manufacturing facilities; too much material tied up in stock; over-equipment; break-downs and repairs in equipment during working hours; failure to provide work or material or tools on time; these are certainly factors not within the control of the workers in a plant. This does not mean that there is no inefficiency on the part of the workers, but it does mean that the greatest inefficiency is that of management and that you cannot get a high degree of labor efficiency with a low management efficiency.

Our experience proves further that through efficient organization, proper records, control of production and improved facilities, manufacturing efficiency can be materially increased, and in accomplishing these things we have found that no stop-watch is at all necessary.

This brings us up to the matter of the worker's part in industry. There are seven essentials necessary in industry:

(1) Supplying the funds; (2) providing the plant; (3) furnishing equipment; (4) providing an organization; (5) placing orders for work; (6) supplying material; (7) doing the work. In the first of these capital is concerned; the next five fall within the province of the management; labor is concerned with only one of them—doing the work. In this the element of time enters, and the thought behind the use of the stop-watch has been to study this use of time by labor.

It is of course true that labor has felt that the less hours it worked the *more* work there will be for *more* people. In some cases labor has even gone so far as explicitly to take the attitude that it ought to reduce the amount produced per hour in order to "make jobs' for more men. So in our experience we have been observing a three-fold tendency:

(*a*) Less hours work per man; (*b*) less production per hour per man; (*c*) greater wages per hour per man; which is the basis of the vicious cycle of increasing prices.

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GIVING EMPLOYEES INFORMATION

Under the plan of employee representation through works councils in the International Harvester Company's plants, the men are shown figures which it had been the custom of the company to keep secret. Thousands of men, when given this information, have been able to use it intelligently and act wisely upon it.

By Cyrus McCormick, Jr.
(From the "Manufacturers' News.")

Those men who object to employee representation argue that employees are more interested in high wages; that they will elect undesirable or incapable representatives; that they will break down the discipline of the shop, and that it is merely an invitation looking toward the ultimate establishing of a closed shop. In reply to those objections, I believe that while it may be argued that the point of view I have followed is a matter of opinion, no one has suggested a more constructive arrangement for settling the differences between employers and employees. Secondly, our experience indicates that as often as not the men ask for shorter hours rather than higher wages. They are interested in living happily, and they feel that employee representation is giving them a better chance of livelihood.

To others who claim that a group of American employees will not elect men capable of upholding the confidence reposed in them, I quote figures to indicate the stable characteristics of men chosen by the employees of the International Harvester Company as their representatives. The average of these representatives throughout our company is about 37 years. Three-fourths of them are married. Their average employment with the company is over seven years, and a large number own their own homes or stock in the company. They are required by the plan to be American citizens, but that has not prevented the election of a large number of good Americans born in foreign countries, some of whom have proven themselves in common council far above the average ability. I do not pretend to say that we do not have any radicals among the number, but their presence has only served to make the discussion keener and to prove to us that our plan was really democratic in basis. The men, of their own free will, have chosen responsible representatives whose opinions are valuable for what they are.

The workings of the plan have called upon the representatives of the men and management alike to put forward their keenest intelligence. In the beginning it was quite natural that the first demands were all for large increases in wages. The plan passed successfully a very severe test when it had to be explained to the men, through their representatives, that the financial condition of the company and of the business were not such as to justify a flat increase of wages. Later, when the cost of living rose again, as it did last summer, the question was again brought up, and this time the management representatives accepted the point of view of the employee representatives just as sincerely and fairly as in the beginning the latter had accepted the view of the former. The International Harvester Company, since the inception of its plan of employee representation, has never held back any information from the men. Business policies have been discussed and figures shown which it was our former custom to keep secret. We share their pride in the fact that thousands of men, when given this information, have been able to judge it intelligently and act accordingly.

The company has also been able to discover many inequalities in the wage scale which it did not dream existed.

CANADA'S INDUSTRIAL EXPANSION

Continued from page 72

Will Make Steel Tires

Company Formed in Montreal to Engage in Important Industry in Field of Railway Equipment

In anticipation of an increasing demand by Canadian railway corporations for steel tires for locomotive and passenger equipment, a company known as the Canadian Steel Tire & Wheel Co. has been formed, with a view to establishing a plant for their manufacture in this country. The company have acquired a plant on Marien Avenue, Montreal East, formerly used in the manufacture of munitions, and are rearranging it to suit their requirements. They expect to have the machinery installed and to be ready to start operations about the middle of January and at first will employ from fifty to sixty hands.



Mr. F. J. Buller
Vice-president and Manager of the newly-formed Canadian Steel Tire and Wheel Company, Limited

It is understood that American capital is behind this enterprise, though the management is in Canadian hands. The vice-president and managing director is Mr. F. J. Buller, formerly treasurer of the Canadian National Railways at Toronto, who has resigned from the latter position to take up this new line of work. On the directorate is also Mr. K. W. Blackwell, of Montreal, director of the Canadian Car & Foundry Co. The superintendent is Mr. Stephen H. Williams, an experienced producer.

Mr. Buller is a well-known figure in Canadian railway circles. He has been in the service of the Canadian Northern and Canadian National Railways for nearly twenty years and through this connection has acquired an intimate knowledge of railway management, especially in the financial end, which will prove of value to him in his new position.

Tire Factory Increases Capacity

Additions to Goodyear Plant at New Toronto Will Jump Tire Capacity from 2,500 to 3,500 per Day

Three extensions and two smaller buildings are at present in course of erection at the New Toronto plant of the Goodyear Tire & Rubber Co. of Canada, Limited. The present main building is 100 feet wide by 460 feet long, four storeys and basement. One of the extensions makes a 100-foot addition to the main building. The other two extensions, measuring 100 x 120 feet, four storeys and basement, are connected to and run south of the main building. There is also under construction a building 80 x 50 feet to be used for the manufacture of chemicals and another 50 x 75 feet. These various additions, which should be ready for use by the end of the year, will give an increased capacity of 1,000 pneumatic automobile tires per day, bringing the output up to 3,500 tires. In addition to automobile tires the plant is thoroughly equipped for the production of motorcycle and bicycle tires, automobile, motorcycle and bicycle accessories. At present the factory is operating to full capacity on a 24-hour day. The company have not been able to fill all their tire orders for a period of about two years.

New Box Factory

Peterboro Industry Acquires Land from City on which to Make Needed Plant Extension

The City of Peterboro is selling the Alfred McDonald Lumber Co., Limited, a piece of land adjoining their present plant, on which they will erect a box factory and storage shed, the main building being 50 x 50 feet. The company have been in the box-making business for some years, but find their present quarters too cramped. The building at present used as box-factory also houses planing mill, sash and door factory. By removing the box-factory, space will be available for the development of other departments.

Cotton Mill Extension

Milltown Plant of Canadian Cottons, Limited, Being Enlarged at a Cost of $750,000

To take care of their steadily increasing business in fine dress ginghams, Canadian Cottons, Limited, are erecting a large weave shed in connection with their mill at Milltown, N.B. The new building will be approximately 410 feet long by 186 feet wide, consisting of a basement and one floor. All the foundation walls are of concrete and the columns, beams and girders throughout are of B. C. fir. The flooring is also of B. C. fir with hardwood top. When completed, which will hardly be before the first of next September, it will be one



Foundation Work for Mill
Big Extension under way for Canadian Cotton, Limited, at Milltown, N.B.



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of the finest plants of its kind in America, costing about $750,000.

Referring to the new addition, Mr. A. O. Dawson, vice-president and managing director of Canadian Cottons, Limited, says,—"The only thing that is at all worrying me is as to whether we will be able to get the necessary help to run the plant when it is ready. We are hopeful, however, that we will be able to secure the necessary help, as we can draw from the American side of the River, as well as from the Canadian. In fact, nearly half our employees at that mill are American citizens, having their homes in Calais, Maine, and coming c[illegible] to Milltown each day to earn their living."

New Whitewear Industry

Two Owen Sound Men Arrange to Start Manufacturing Industry in their Home Town

As reported by the Owen Sound *Sun-Times*, Messrs. Robert McKnight and J. J. Kelley are arranging to open a factory for the manufacture of whitewear in that town. They have leased a flat known as Lemon's Hall and expect to start manufacturing in November with about 20 girl operators. Mr. McKnight is a returned officer, who was formerly engaged in the whitewear industry in Montreal. Mr. Kelley until recently was a member of the dry goods firm of Brookes & Kelley. Local capital is interested.

New Electric Conduit Plant

Canadian Allis-Chambers, Limited, Are Erecting a New Building at Their Toronto Works

A plant for the purpose of electro galvanizing and enameling electric conduit is at present being erected by Canadian Allis-Chalmers, Limited, in connection with their Toronto works, and will be ready for occupation about the first of February next. This new department will, when in operation, employ about forty men and will have a capcity of about 12,000,000 feet per annum of the highest quality conduit, in sizes from ½ in. to 4 in. in diameter. The building will be 650 ft. x 150 ft., one story high, of fireproof construction, and will contain the most up-to-date equipment used in the process of zinc plating. Steel trusses span the entire width, with 20 ft. of head room above floors, and electric mono-rail cranes will operate over the pickling and plating tanks. There will be three complete dynamos, each of 5,000 amperes capacity, while in addition to the equipment used in the process of zinc plating the plant will be equipped with baking furnaces and other appliances required in the process of black enameling conduit.

New Paper Products

Howard Smith Paper Mills, Limited, Will Develop a Number of New Lines at Cornwall

In connection with the recently announced purchase of the Toronto Paper Company's Mill at Cornwall by the Howard Smith Paper Mills, Limited, an interesting announcement is made by Mr. C. Howard Smith, president of the latter company. Mr. Smith states that the plant at Cornwall is well adapted to make certain grades of paper that have not hitherto been manufactured in Canada.

"The programme that we have laid out," says Mr. Smith, "is to put this plant in first-class shape to develop lines of business that are not made in Canada to any extent. I might mention blotting paper, which is almost altogether imported from the United States; bristol and index boards, of which there are very small quantities made in Canada, and high-grade cover papers. Doubtless there will be other lines that we will make when the market opens up for them. As you

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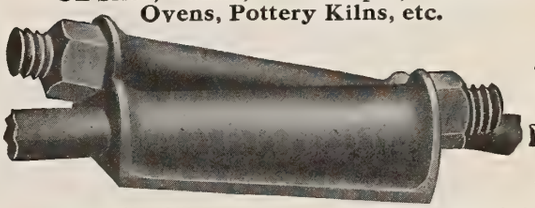
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are doubtless aware, the imports of paper into Canada for the last fiscal year amounted to something over $8.000,000. Believing, as I do, in the necessity of Canada making every possible article it can for its own use and exporting the surplus, in this item of $8,000,000, there is a great opportunity for our plant."

The plant taken over is situated on the Cornwall Canal, and has good water power and an excellent quality of water. The mill is well and substantially built of brick and covers an extensive area of ground. It has railway facilities with the G.T.R., C.P.R., and O. & N.Y., as well as boat transportation to Montreal and Toronto. In this respect it occupies a unique position in Canada. The plant is well organized, having good men at the head of the different departments, Mr. W. J. Wallace, Treasurer of the Company, being one of the prominent figures in the Canadian paper industry. Besides the paper mill, which contains four machines, there is a sulphite plant, with a capacity of about 20 tons of bleached sulphite a day.

With the acquisition of this mill at Cornwall, Howard Smith Paper Mills, Limited, will have three divisions, which will enable them to carry out their policy of specialization to still better advantage. It will be their policy to make as few grades of paper as possible in each mill, which will result in the production of better paper on a more economic basis.

Will Make Small Motors

Branch Plant of Robbins & Myers Co., Springfield, Ohio, Being Erected in Brantford

One of the latest United States companies to decide upon manufacturing its product in Canada is the Robbins & Myers Co. of Springfield, Ohio, makers of small motors, who have selected Brantford as the home of their Canadian enterprise. A factory building, 150 x 380 feet, is being erected in the Holmedale Section, and this will be equipped with the latest type of machinery. Mr. Roy Booth, the manager, states that they expect to start production on January 1, employing approximately 500 people at the outset. The plant will have a capacity of 125,000 motors per year work and represents an aggregate investment of $500,000. Asked as to the connection between the Canadian industry and the parent concern, Mr. Booth stated that the arrangements had not yet been shaped up in concrete form.

Cut-to-Fit Houses

New British Columbia Plant Expected to Start Operations by End of January

A deal has recently been completed whereby The Cut-to-Fit Building Company, Ltd., with head office in Vancouver, have acquired 60 acres of land on the north arm of the Fraser River, on which there is now being erected a factory and mill for the manufacture of cut-to-fit houses. It is expected that by the end of January, 1920, the new plant will be in a position to handle 125,000 feet, equivalent to 5 houses per day.

Recently, through efforts put forth in the interests of British Columbia in London, the cut-to-fit house is gaining favor. The enormous demand for house accommodation in the United Kingdom, and the increase in the price of labor, has made it imperative that some cheaper means of housing the great populace be found. For months the Government of Great Britain refused to even consider the cut-to-fit house idea, but recently advice has been received from the British Columbia Agent-General in London, that the British Government is now ready to give mill-cut houses a trial.

The new plant of the Cut-to-Fit Building Company, Ltd., will be modern in all respects. All lumber will be brought

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from the saw-mills in dimension form, and cut and dressed to size. The new mill will have excellent shipping facilities, both by boat and rail, and present indications point to a large export business, in addition to the present steady demand from the North-West for houses, farm buildings, garages, etc., which this company will be in a position to manufacture.

New Packing Plant

Davis & Jones Launch Out in a Modest Way in City of Moncton, N.B.

A new packing plant for the Maritime Provinces is being established by the firm of Davis & Jones in Moncton, N.B. A two-story wooden factory building is being erected and it is hoped to start operations this month. For the present the firm will not do any slaughtering but will buy dressed hogs from the surrounding country. They will put on the market pork products of all kinds, as well as bologna, and at the outset will not employ more than five or six hands, as they plan to go very carefully until well established.

More Automobile Bodies

Capacity of Walkerville Plant of Fisher Body Co. of Canada Considerably Enlarged

Certain additions are at present being made to the plant at Walkerville, Ont., of the Fisher Body Co. of Canada, Limited, which will greatly increase its capacity. The company estimate that, when the additions are completed, the factory will have a capacity of approximately 300 open and 25 closed automobile bodies per day. It was recently reported that the company proposed to build a new five-story factory in Windsor, but Mr. V. A. Clemen, the manager, states that action on the building of this plant has been deferred until spring.

Coke Plant Operating

Granby Consolidated Mining, Smelting & Power Co. Start Work at New Anyox Plant

In July the Granby Consolidated Mining, Smelting & Power Co. began to produce coke and by-products in their coke ovens at Anyox, British Columbia. The big plant, which is the only one of its kind on the Pacific coast, has been two years in preparation and is now in full operation. Coal for the 32 ovens is supplied from the Granby's properties at Cassidy, Vancouver Island, from which steady shipments have been made to the northern smelter town for several weeks past. The coke produced is said to be of excellent quality, and continued operation is expected. The by-products of the coke plant include, toluol, benzol, sulphate of ammonia, and coal tar, for all of which there is a consuming market. The coal tar will be shipped to Vancouver to be fractioned into pitch and creosote, and will provide British Columbia points with a dependable product.

Stratford Factory Extending

Sixty Thousand Feet More of Floor Space Being Added to the Plant of Kindel Bed Co.

An "L" extension, 185 x 75 feet, three storeys and basement, is being added to the main building of the Kindel Bed Co., Stratford, giving that company about 60,000 feet more floor space. The work was started last summer, but is progressing more slowly than expected and will not be finished until February. A shipping shed for convenience in loading and unloading will also be added to the plant. The Kindel Bed Co. moved to Stratford from Toronto in 1916, and the business since that time has been growing fast.

Will Give More Employment

Enlargement of Brantford Plant Will Require Hiring of Hundred Additional Hands

Two additions to the plant at Brantford of the Slingsby Manufacturing Co., Limited, manufacturers of bed and horse blankets, mackinaws, kerseys, linings, sheetings and yarns, are at present under construction at an approximate cost of $200,000. The main mill is being enlarged by the erection of an extension, 140 x 100 feet, four storeys high. This building will be utilized for manufacturing and the company are installing additional cards, mules and looms. The second erection consists of a dyehouse, 80 x 84 feet, three storeys high, which is being equipped with the most up-to-date dyeing machinery. The additions will require the employment of a hundred new hands.

Larger Output for 1920

Re-organized Industry in Stratford Will Make Improvements to Increase Capacity

While no definite announcement will be made for a while yet, the McLagan Furniture Co., Limited, Stratford, under new management, will undoubtedly be extended to provide for a larger output in 1920. The company has recently been reorganized, the McLagan Estate having disposed of its interests in the George McLagan Furniture Co., Limited, and the Stratford Chair Co., Limited, to Toronto and Montreal financiers. It is now known as the McLagan Furniture Co., Limited, and controls not only the two Stratford industries, but the Meaford Manufacturing Co. as well. D. M. Wright is president and managing director; W. K. Trower, Montreal, vice-president; H. S. Robertson, secretary-treasurer, and R. S. Robertson and L. M. Green, Toronto, directors. Both Stratford plants are at present operating to the fullest capacity, the production of phonographs being steadily on the increase. The McLagan plant is one of the largest and best equipped plants of its kind in Canada. The Stratford Chair Co.'s plant is a four-story concrete building, containing 60,000 sq. feet of floor space.

More Storage Room

Addition to Plant of Dominion Sheet Metal Corporation Gives Much Needed Room

At their works in Hamilton, the Dominion Sheet Metal Corporation, Limited, have nearly completed a brick and stone addition, 50 x 140 feet and two storeys high. The ground floor will be used entirely as warehouse space to enable the company to carry a much larger stock of Premier galvanized sheets, while the second floor will be used for light storage and other purposes. Everything is prepared to add at some future appropriate time two additional storeys, the steel work being especially heavy on that account. The building is being equipped with elevator and mono-rail electric hoist of three ton capacity.

New Industry for N.B.

Manufacture of Hardwood Last Blocks to be Commenced on Large Scale by English Interests

A new and promising industry, that of the manufacture of hardwood last blocks, will soon be added to the industrial enterprises of New Brunswick. Mr. H. Mobbs of Kettering, England, has decided to locate a plant for this purpose at Mullin's Brook, near McGivney Junction, on the line of the

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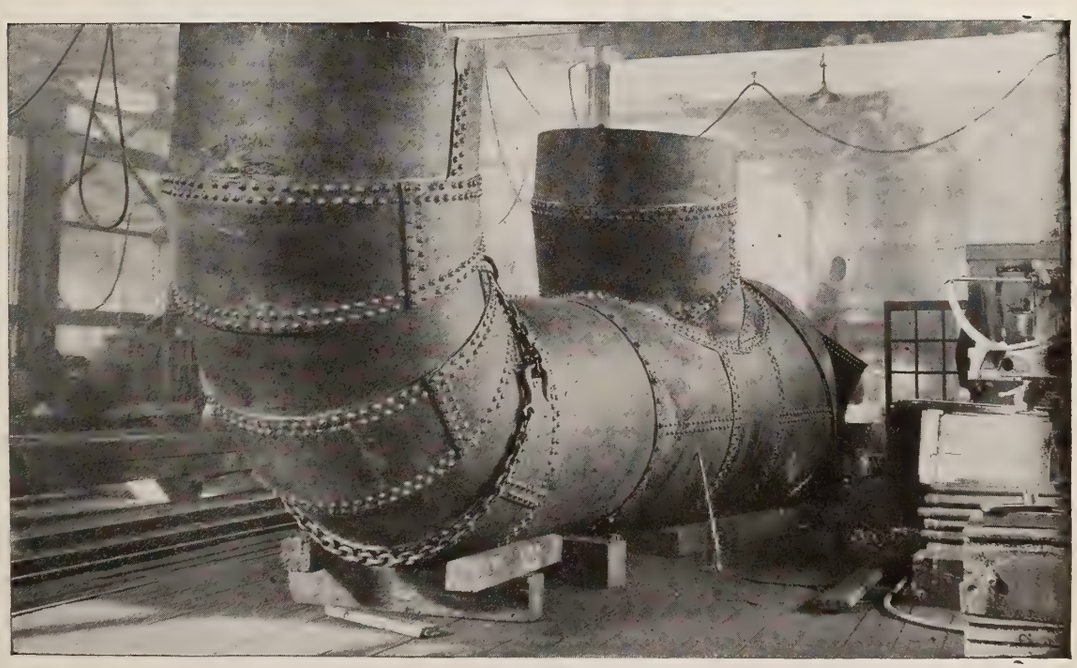
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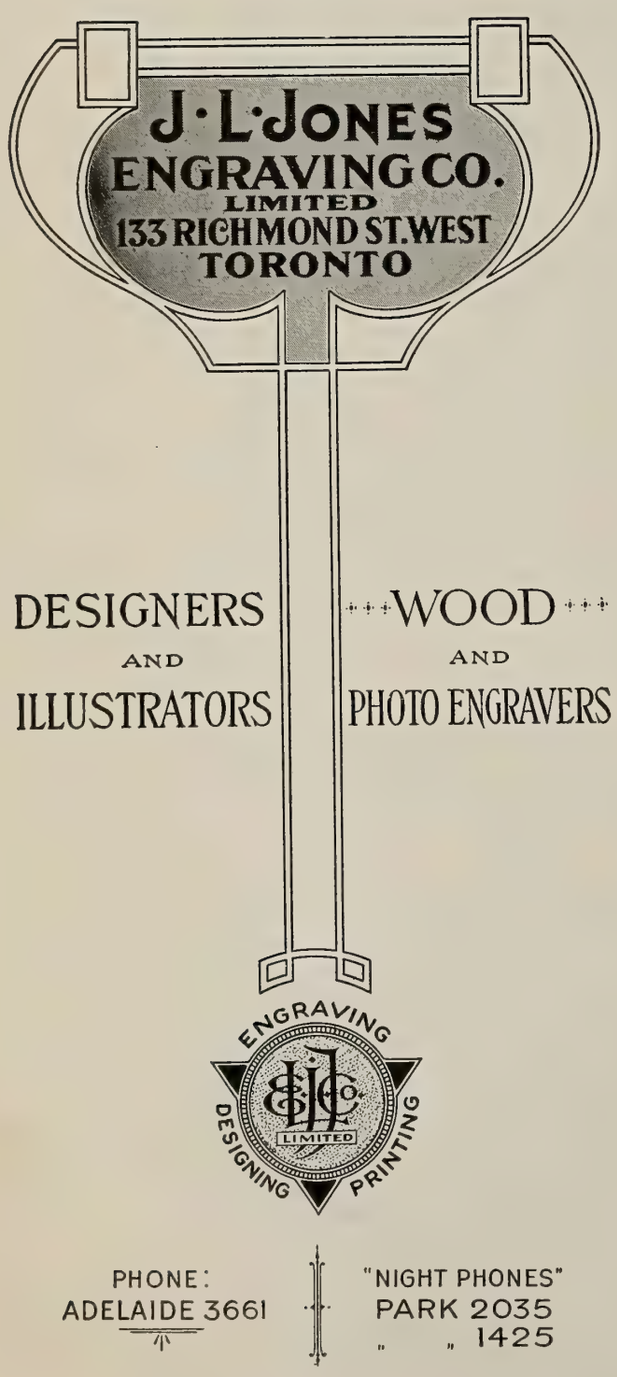
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Canadian National Railways. A mill, formerly in operation at Napadoggan, is being moved to Mullin's Brook and when erected will give employment to from one to two hundred men. An arrangement has been entered into with the Nashwaack Pulp & Paper Company, for the necessary supply of hardwood and it is expected that from three to four million feet of maple timber from the old Gibson limits will be manufactured yearly into last blocks. Mr. R. T. Baird is slated as manager of the new enterprise.

A Wire Rope Plant

Company Formed in British Columbia to Establish Industry on Granville Island, Vancouver

The Britannia Wire Rope Co., Ltd., with an authorized capital of $100,000, propose to establish a factory on Granville Island, Vancouver, for the manufacture of wire rope. Up to the present the large demand for wire rope in British Columbia has been supplied principally by rope imported from England and the United States. Exact information as to the requirements of logging and other industries in British Columbia depending on regular supplies so impressed a large British corporation which controls its own resources of raw materials, that the Britannia Wire Rope Company has been formed. The proposed site for this plant is eminently suitable for such an industry, having access both to rail and deep-water, which will greatly facilitate the handling of the output.

A New B.C. Industry

Manufacture of Soil Pipe to be Commenced in Former Plant of Robertson, Godson Co.

Colonel J. S. Tait, late Commander of the 29th (Vancouver) Battalion, is reported to have purchased the plant of the Vancouver Pipe & Foundry Co., Ltd. This plant was formerly operated by the Robertson Godson Co., but has not been working for the past six years. The foundry is now being equipped with all the necessary machinery and moulds to operate a ten-ton capacity cupola. Cast iron pipes and fittings as well as castings will be made in the new foundry. The manufacture of cast iron soil pipe is a new industry in British Columbia, there being no other similar industry in that province.

Doubling its Capacity

Dominion Forge and Stamping Co., Limited, are Making Important Plant Extension

The Dominion Forge & Stamping Co., Limited, Walkerville, are at present doubling the capacity of their board hammer shop and are installing a new 8,000-lb. steam hammer and a new 5-inch forging machine. The recent sale to the Ford Motor Co. of Canada of their frame and fender plants does not in any way affect the forge plant. The only difference will be that the company will devote their entire attention to the forging business and be in a better position to give efficient service.

Branch Plant for Peterboro

Nashua Gummed & Coated Paper Co. Preparing to Locate Canadian Plant in Peterboro

The Nashua Gummed & Coated Paper Company of Nashua, N.H., a well-known American firm of paper converters, have plans well advanced for the establishment of a branch factory at Peterborough, Ontario. This enterprise will occupy the plant recently owned by Stickney Motors, Limited, which has been purchased by the City of Peterborough and leased to the Nashua Company. The buildings are single storey brick

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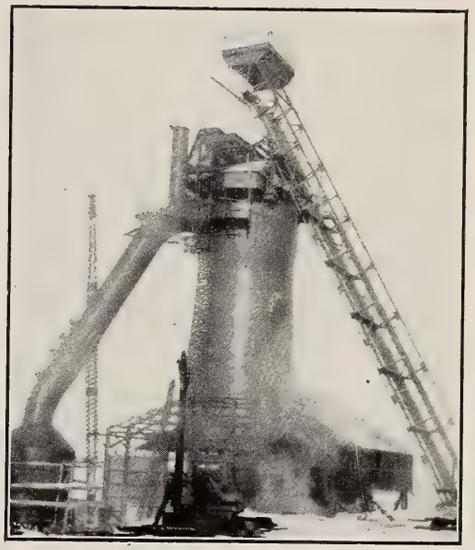
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mill construction, and have seventy thousand square feet of floor space. About thirty people will be employed initially. It is expected that operations will start during the coming January. The plant will be thoroughly equipped for the production of non-curling sheet gummed papers, cloth-lined papers, box stay, sealing tape, gummed cloth, and plain and printed waxed papers of all grades.

Confectionery Plant Extended

Bean & Westlake, Limited, Have Been Very Much Crowded for Room of Late

Owing to the pressure of expanding business, Bean & Westlake, Limited, are adding an extension, 21 x 70 feet, three storeys high, to their plant in Woodstock. It will not be completed until after the first of the year, but is being used to a certain extent. The new addition will increase floor space by about one-fourth and output by one-third, but will only give temporary relief. It is the intention of the company to erect another building in the near future.

Quebec Brewery Enlargement

La Brasserie Champlain, Limitee, Plan Extensions Increasing Their Capacity Largely

A programme of extension has been inaugurated by La Brasserie Champlain, Limitée, Que., which will increase capacity from 125 to 375 barrels per brew. At present a new cold storage building 172 x 46 feet, 4 storeys high, and with capacity of 60 vats of 5,000 gallons each, is under erection and will be completed by March 1. Next year a new bottling department, new power house and second brew house with capacity of 250 barrels per brew will be erected. The Company are manufacturing India Pale Ale, Pale Ale, Biere Blonde, Tip Top Beer, Biere Temperance and Porter.

Will Make Wire Cloth

Niagara Falls, Ont., the Site of a New Industry in Which American Capital is Interested

A plant is at present under construction at Niagara Falls, Ont., for the Niagara Wire Weaving Co., Limited, a new company in which Mr. Hamilton Lindsay, President of the Lindsay Wire Weaving Co., Cleveland, Ohio, is principally interested. The company are spending about $220,000 in plant and equipment, and will employ about 150 hands in the manufacture of wire cloth and wire-weaving machinery. The market for these products will be largely in Ontario and Quebec, they being used in pulp and paper mills and other industries.

Rubber Industry for Guelph

Northern Rubber Co., Limited, Expect to Get Going Early in the New Year

It is anticipated that the plant being erected in Guelph by the Northern Rubber Co., Limited, will be ready for operation early in 1920. It is a building, 80 x 200 feet, four storeys and basement, of reinforced concrete, and when equipped will have a capacity of 5,000 pairs of rubbers per day, and a payroll of about 500 hands. The company are capitalized at $500,000, half common and half preferred, and the present investment is about $250,000. F. E. Partridge, chief executive of the F. E. Partridge Rubber Co. is president; F. W. Kramer, formerly superintendent of the Dominion Rubber Co. factory at St. Jerome, is vice-president and superintendent, and A. F. Dwyer, formerly manager of the Maple Leaf Rubber Co., Port Dalhousie, is secretary-treasurer.

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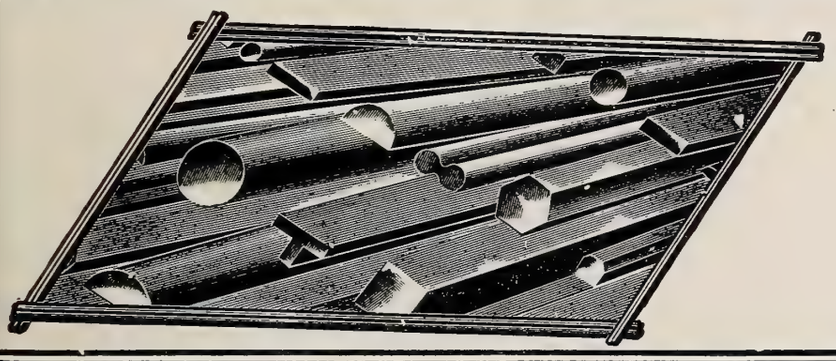
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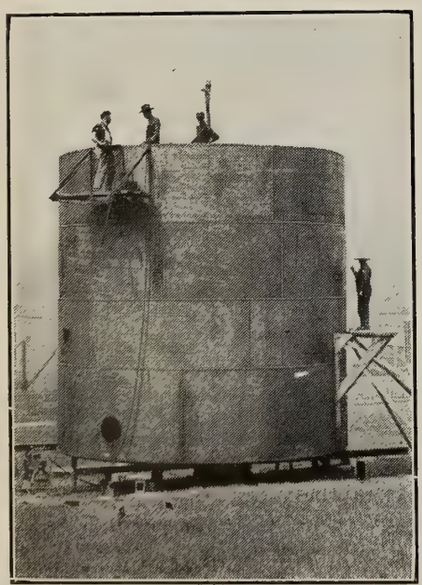
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St. Thomas Developments

Several New Industries Getting Started, Particularly in Musical Instrument Line

A new company, known as St. Thomas Cabinets, Limited, and capitalized at $100,000, has recently been formed in St. Thomas for the purpose of undertaking the manufacture of gramaphone cabinets and panels. They will occupy about 23,000 square feet of floor space in the Lawson E. Jones plant, formerly known as the Thomas Bros. plant, and expect to be producing about January 1. B. F. Honsinger is president; Jos. Bone, vice-president and manager; J. B. Woodhouse, secretary-treasurer; H. Woodhouse, A. A. Ingram and P. A. Honsinger, directors.

Provincial Machine & Supply Co., which was formed earlier in the year for the manufacture of gramaphone motors, tone-arms, cranks and metal parts, are now ready for production.

Hitch Bros. of Canada, Limited, have organized with Mr. A. J. Hitch as president and general manager, to manufacture a patent wall-paper hanger which bids fair to revolutionize the trade. They are capitalized at $50,000 and expect to start manufacturing in December.

A New Chemical Industry

Plant at Kitchener, Ont., Will Refine Medicinal Salts Secured from a Lake in Saskatchewan

Operations will begin very shortly on a fairly large scale at the plant of the Salts & Potash Co. of Canada, Limited, Kitchener, Ont. This company, formed last April, was the outcome of an investigation of the potentialities of chemical materials found in Maskaki or Houghton Lake, Saskatchewan. This lake contains about eight square miles of a substance known as astraknit, which in its crude form has no commercial value. Several years ago a few Canadians conceived the idea of having the raw material of the Lake analyzed and experiments were conducted from time to time by chemists in the United States and Canada. After the expenditure of considerable money, the project was declared to be commercially feasible and a lease was secured from the Dominion Government.

An evaporating plant has been installed at the Lake, this being of a modern and up-to-date design. A spur line has been run in from the Prince Albert branch of the G.T.P. and the evaporated salts will be shipped to Kitchener, where a refining plant has been established. The company have purchased a building suitable for the purpose from the Canadian Pyrofugout Flooring Co., and have applied the refining process to the building. For the first six months they will handle from 100 to 150 tons of crude salt from the lake per week. The product to be manufactured consists of epsom salts, glauber salts, magnesia carbonate, potassium chloride, potassium nitrates, potassium sulphate and medicinal salts, and the company expect to commercialize their product to the Canadian trade in a very short time. They have absolute faith in the success of their enterprise because through experiments and research they have demonstrated that the product soon to be offered will be superior in quality to anything heretofore marketed in Canada.

The directors are, A. J. Gough, Sellers-Gough Fur Co., Limited, Toronto; Richard Gough of the same firm; John

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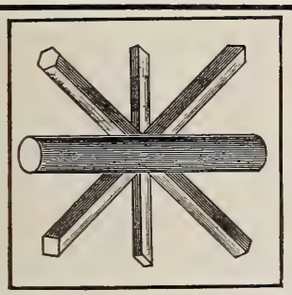
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Seitz, Canadian Branch Underwood Typewriter Co., Toronto; W. W. Sloan, Toronto; W. G. Weichel, ex-M.P., Waterloo; Jacob Klotz, Kitchener; C. Ide, Kitchener. Mr. Gough is president; Mr. Sloan, vice-president; Mr. Klotz, secretary-treasurer; Mr. James E. Day, Toronto, assistant secretary and solicitor; Mr. Weichel, managing director and Mr. C. Ide, production manager. Mr. C. W. Hancock, formerly connected with British Acetones, Limited, Toronto, is chemist.

The Dominion Glass Co., Limited, are at present carrying out their pre-war programme of doubling the capacity of their plant at Redcliff, Alta.

The Canadian Chicle Co., Limited, have sold their building in Peterborough to the Western Clock Co. and have taken over the property of the Lundy Shovel & Tool Co. One of the building is being remodelled to suit their purposes, and the balance, consisting of 20,000 ft. of floor space and an acre of land, will be sold or leased.

Eclipse Rubber Co., Limited, Montreal, have rented a building in Victoriaville, P.Q., and commenced the manufacture of waterproof clothing there, employing about 100 hands. Operations commenced about October 15, and so far results have proved satisfactory. If success continues the industry will be enlarged.

A new industry for Brantford is that of J. & J. Cash Inc: of Coventry, England, and South Norwalk, Conn., manufacturers of cotton labels, etc., who have secured space in the *Expositor* Building and will start operation about the beginning of the year with 25 hands. The business will be run in connection with the South Norwalk branch.

The General Phonograph Corporation, of New York, have bought out the plant of the Pollock Mfg. Co., Limited, Kitchener, and will continue the manufacture of phonograph motors, tonearms and reproducers.

About $300,000 is being expended by the Steel Company of Canada, Limited, on enlargements to their Montreal works. They are building crane runway, forge shop and new finishing and storage buildings in connection with their bolt and nut department, which will add materially to their capacity for production in these lines.

The Vancouver Sheet Metal Co. have recently moved into their new plant on Granville Island, Vancouver. This plant takes the place of that destroyed by fire some months ago in another part of Vancouver City, and the new factory is equipped with the latest machinery for turning out cornices, skylights, windows, kalanin doors, corrugated iron roofing, etc.

It has been found necessary to hold over until December a good deal of additional material about recent industrial developments. As already pointed out there is much activity at the present time and space is not available to refer to it all. The December number will contain supplementary information.

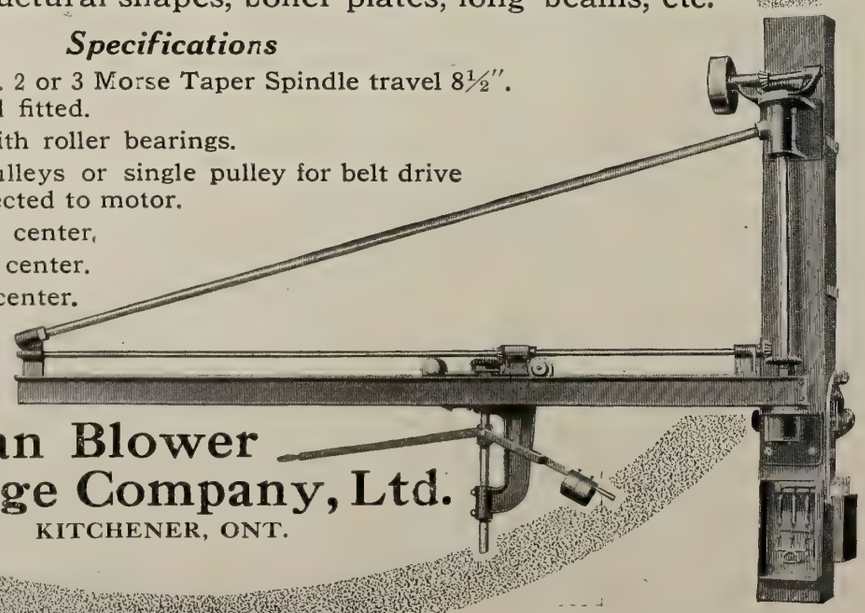
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Vancouver Island's Resources

As Disclosed by the Exhibits at the Home Products Fair Recently Held at Victoria

By T. J. GOODLAKE
Secretary, Victoria and Vancouver Island Section, C.M.A.

THE exhibits shown at the Home Products Fair, which was held recently in the Hudson's Bay Building, Victoria, B.C., on the initiative of the Victoria and Island Development Association, were a revelation of the progress which has been made in the industrial and agricultural development of Vancouver Island. And no very active imagination is needed to envisage by their aid the vast commercial future which is opening up for this unique and richly endowed corner of the Dominion.

As in the minds of many, to whom the Pacific Coast is still *terra incognita*, there is some vagueness as to the geography of that region, it should be explained that Vancouver Island forms part of the Province of British Columbia, and the City of Victoria, which occupies the extreme southern tip of the Island, is the Capital of the Province. The Island is 278 miles long by 60 miles broad, and has an area of some eight and a half million acres. It is separated from the provincial mainland by a series of narrow channels widening into the Gulf of Georgia, and from the State of Washington by the Straits of Juan de Fuca.

While it consists partly of rocky and forested mountains, at least one million acres can be classified as arable land. Its shores are washed by the Japanese current (the Gulf Stream of the Pacific), so that the mildness and equability of the climate are favorable to fruit-raising, and this is extensively carried on, especially in the neighborhood of Victoria. The strawberry crop has become particularly in demand in the Prairie Provinces and co-operative marketing has enabled large and regular shipments to be made at profitable prices.

The coal deposits of the Island are estimated at over one billion tons. They are worked by a number of long-established collieries, whose product is second only in steam-raising qualities to Welsh coal. Other mining possibilities of the Island, particularly in iron and copper, are practically unlimited and await only capital and enterprise for their development.

The surrounding waters abound with many sorts of fish, including salmon, halibut, cod, herring, oolichan, salmon-trout, bass and others. The total salmon pack of the Island canneries approximates 200,000 cases, the greater part of which is exported to European markets. A clam cannery has been established for many years at Sidney.

The whaling industry, carried on by the Consolidated Whaling Corporation, has its headquarters at Victoria, and two of its four stations are situated on the Island. Some hundreds of the largest whales are caught annually. The products include oil, fertilizer, bone meal, and canned whale meat.

The forests of Vancouver Island are capable of producing annually over one billion feet of merchantable timber, of which about a quarter is the present estimated cut. The

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Plenty of Light Need Not Mean Extravagance in Lamps

Without good light, and plenty of it, no workman can do his best work. Granted! But how about the expense? Needn't be anything but economy in every sense of the word if you use Toronto Hydro Lamp Service. We not only have the best and most modern lamps, but we will gladly offer suggestions as to how to use them if required. Our representative will gladly call without obligating you to purchase.

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Open until 1 p.m. Saturdays

Branch: Gerrard and Carlaw
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MARINE INSURANCE

EXPORT IMPORT

INCLUDING LOSS BY MINES AND STRIKES

Geo. McMurrich Sons, Limited

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REPRESENTING

Fireman's Fund Insurance Company

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The Marine Insurance Company Limited, of London, England

Phoenix Assurance Company Limited, of London, England

The Thames and Mersey Marine Insurance Co., Limited

The Union Marine Insurance Company Limited, of Liverpool

The Yorkshire Insurance Company Limited, of York, England

Certificates Made Payable in any City in the World

THE

New Zealand Shipping Company Limited

CANADA

TO

Australia and New Zealand

Regular monthly sailings from Montreal in summer and St. John in winter, calling at Auckland, Wellington, Lyttelton and Dunedin (New Zealand) and Melbourne and Sydney (Australia). Sailings 20th of each month.

Through bills of lading issued to all points in Australia, New Zealand, Tasmania and other islands of Oceania.

Marine Insurance effected at rates equal to those given from New York.

For rates and other information apply to

The New Zealand Shipping Co.

LIMITED

213 Board of Trade Building, Montreal

principal varieties are spruce, hemlock, Douglas fir, cedar and balsam. The chief markets are the Middle West of Canada, Europe, Australia, and South Africa.

Turning from the basic industries to the manufactures of finished product it was evident from an inspection of the Fair that successful concerns were already well established in many lines. These included notably paint, soap, mineral waters, biscuits, confectionery, condensed milk, pickles, preserves, coffee, extracts, vinegar, rice, oat and wheat products, macaroni, lace. There was also shown the output of a score of other industries in various stages of development.

A prominent stand was that of Yarrows, Ltd., of Esquimalt, whose exhibit included a model of a type of Indian shallow draft, stern-wheel steamers, of which several have been exported by the firm, and also a standard make of aeroplane which had been completely overhauled and rebuilt at the same plant.

Much credit is due to the officials of the Victoria and Island Development Association for the admirable organization of the Fair, and especially to the manager, Mr. George I. Warren. His energy was instrumental in attracting the dense crowds that thronged the building during the whole of the week that the Fair was open. The exhibition was honored by a visit from H.R.H. the Prince of Wales, who made a detailed and interested inspection of the stands.

Places for Disabled Men

An Appeal Being Made to Manufacturers to do Their Best to Supply Jobs for These Men

Information & Service Branch, Department of Soldiers' Civil Re-Establishment, has created a Special Department for placing disabled and maimed soldiers in employment and has opened offices at all the leading centres of Canada to give special attention to cases of this category. The first office has been opened at 287 Queen Street West, Toronto, phone Adel. 6530, and employers are earnestly requested to co-operate with the officials of the Department, as the placing of permanently disabled men and amputation cases has become a serious problem and must be faced. There are positions which these men can fill in your factory, store or office with 100 per cent. efficiency, such as watchmen, caretakers, janitors, clerks, chauffeurs, elevator men, etc. The Department can place a fit man who can do a full day's work, but the pressing problem at present is the placing of the man who cannot do a full day's work alongside a fit man and who becomes discouraged and quits. There is a place for such a man, and employers are asked to look over their lists for vacancies and communicate with this Department when needing men.

It is a duty to the Empire and will prove to be a strong factor in keeping down any unrest if these maimed men are provided for. If manufacturers do their utmost along these lines, the large number of unemployed disabled men will soon be taken care of. It is estimated there are between 400 and 500 such men in Toronto alone.

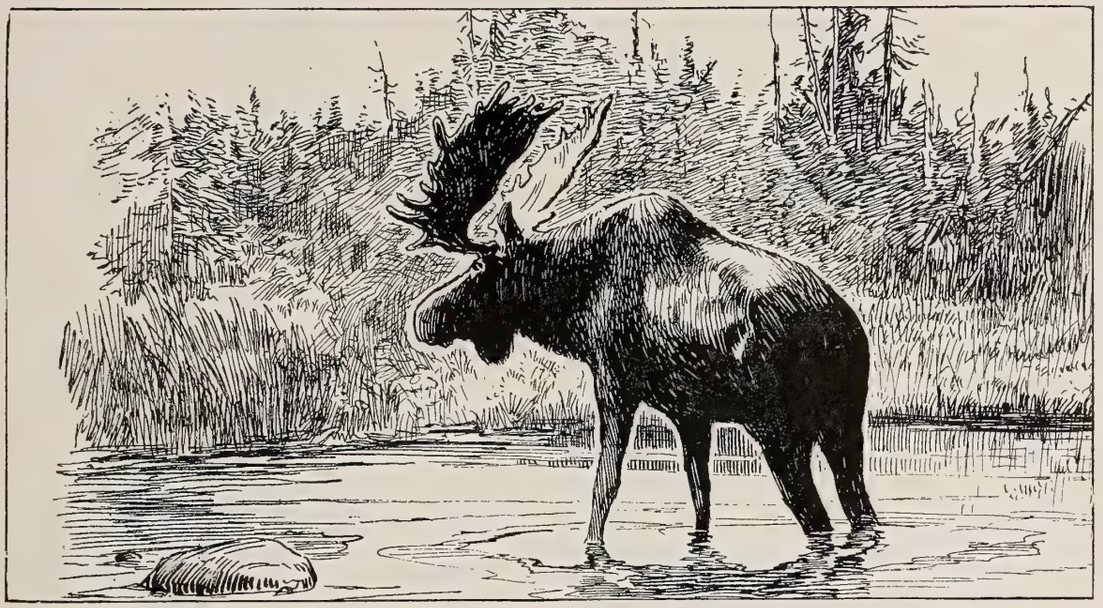
Offices have been opened by the Department at 186 Windsor Street, Montreal; 287 Queen Street West, Toronto; 115 Royal Bank Building, London; 610 Notre Dame Investment Building, Winnipeg; Board of Trade Building, Vancouver; 349 Barrington Street, Halifax.

CANADIAN COLLAPSIBLE TUBE CO., Limited

MANUFACTURERS OF

"Premier" Pure Tin, Plain and Decorated Collapsible Tubes

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The Call of The Open

WHEN the days begin to have that unmistakable fall "tang"---when you shiver more than a trifle if you leave your coat home nights---when the leaves are turning brown quicker than you can watch them---right then you feel that impulse to climb into that old khaki suit, to pull on those old knee boots, and to fondle that fine little old rifle---

AND to get up north where the big fellows are---moose, deer, caribou and bear, at your choice according to locality. Why not? The backwoods of Ontario are calling you to a real fall hunter's holiday.

AND it's so simple to get there. The Canadian Pacific takes you to all the best hunting country in Ontario. Ask any Canadian Pacific agent, or

W. B. HOWARD, DISTRICT PASSENGER AGENT
CANADIAN PACIFIC RAILWAY
1 KING STREET EAST, TORONTO

Canada-South Africa

Direct Service

Regular monthly sailings from Montreal in Summer and St. John, N.B., in Winter, calling at Cape Town, Algoa Bay (Port Elizabeth), East London, Port Natal (Durban) and Delagoa Bay in the order named.

Sailings 20th of each month.

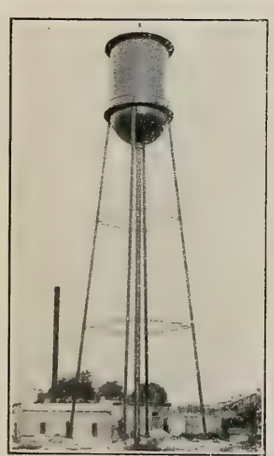
All steamers fitted with refrigerators for the carriage of perishable freight.

For rates of freight and other information apply to

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Bridgeburg, Ontario

ELEVATED STEEL TANKS
For Municipal, Railroad and Factory Service

Storage Tanks, Self-Supporting Steel Stacks and All Classes of Heavy Plate Metal Work

Write our nearest sales office to-day for prices, plans and specifications. Our catalogue No. 25 gladly mailed to you, upon request.

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ESTABLISHED 1875

The Boiler Inspection and Insurance Co. of Canada

Continental Life Building, Toronto

Issues Policies of Insurance after a **Careful Inspection of the Boilers** Covering **Loss or Damage to Property** and **Loss Resulting from Loss of Life and Personal Injuries.** Policies Guaranteed by **The Hartford Steam Boiler Inspection and Insurance Company.**

Assets for Security of Policyholders, $4,552,020.43.

H. N. ROBERTS . . . . . President
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JAMES P. BYRNE . . . . . Secretary
M. B. ROBINSON . . . . . Asst. Secretary

Statement of Principles by U.S. Employers

(Continued from page 60)

out, a sharp distinction should be drawn between the employment relations in the field (*a*) of the private industry, (*b*) of the public utility service, and (*c*) of Government employment, Federal, State, or Municipal. In all three there are common rights and obligations, but in so far as the right to strike or lockout is concerned, the nature of the Government service and public utility operations requires that they should be considered from a somewhat different point of view than private industry.

In private industry the strike or the lockout is to be deplored; but the right to strike or lockout should not be denied as an ultimate resort after all possible means of adjustment have been exhausted. Both employers and employees should recognize the seriousness of such action and should be held to a high responsibility for the same.

The statement that the right to strike or lockout should not be denied does not cover the matter of the sympathetic strike or lockout, where for mere purposes of coercion there is a combination deliberately inflicting injury upon parties against whom the assailants have no grievance, for the purpose of accomplishing an ulterior result. The sympathetic strike is indefensible, anti-social, and immoral. The same may be said of the blacklist, the boycott, and also of the sympathetic lockout.

In public utility service the public interest and welfare must be the paramount and controlling consideration. Modern social life demands the uninterrupted and unimpaired operation of such service, upon which individuals and communities are as dependent as is human life on the uninterrupted circulation of the blood. The state should, therefore, impose such regulations as will assure continuous operation, at the same time providing adequate means for the prompt hearing and adjustment of complaints and disputes.

In Government employment the orderly and continuous administration of Governmental activities is imperative. A strike of Government employees is an attempt to prevent the operation of Government until the demands of such employees are granted, and cannot be tolerated. No public servant can obey two masters; he cannot divide his allegiance between the Government which he serves and a private organization which, under any circumstances, might obligate him to suspend his duties, or agree to assist him morally or financially if he does. Social self-defence demands that no combination to prevent the operation of Government be permitted. The right of Government employees to be heard and to secure just redress should be amply safeguarded.

12. *Training.*—Practical plans should be inaugurated in industry and outside of it for the training and up grading of industrial workers, their proper placement in industry, the adoption and adaptation of apprenticeship systems, the extension of vocational education, and such other adjustments of our educational system to the needs of industry as will prepare the worker for more effective and profitable service to society and to himself.

The foregoing is limited to a statement of principles. Only casual reference has been made to methods by which such principles may be carried into effect. The problems are so serious and difficult that such methods must be worked out by the individual establishments in conjunction with their employees and by industry as a whole.

Why Not Ship "Canadian National"?

Lines of the C.N.R. extend from Atlantic to Pacific through All Canadian Territory. They serve practically all of the important points in each of the nine provinces. They reach direct the important seaports.

Serving All Canada

Use your own line. Instruct your shipper to route your consignments "C.N.R." The service will justify such action.

Get the "National" Idea

Canadian National Railways

Principal Agencies:—Halifax, N.S.; Moncton, N.B.; St. John' N.B.; Charlottetown, P.E.I.; Quebec, Que.; Montreal' Que.; Ottawa, Ont.; Toronto, Ont.; Port Arthur, Ont.; Winnipeg, Man.; Regina, Sask.; Saskatoon, Sask.; Prince Albert, Sask.; Edmonton, Alta.; Calgary, Alta.; Kamloops, B.C.; New Westminster, B.C.; Vancouver, B.C.; Victoria, B.C.

Recent Trade Enquiries

A List of Enquiries Received from Various Sources including the Canadian Trade Mission, London; the Canadian Trade Commission, Ottawa; the Department of Trade and Commerce, Ottawa; and the Commercial Intelligence Department, C.M.A., Toronto.

DOMESTIC TRADE ENQUIRIES.

171. Toronto.—A newly established Canadian firm of manufacturers' agents, with sales offices at Halifax, Montreal, Ottawa, Toronto, Winnipeg and Vancouver, wish to secure agencies for Canadian products. The members of this firm have considerable overseas service and some of them know the English market and export and import trade thoroughly. They are in an excellent position to place Canadian products in foreign countries.
172. Quebec.—A Canadian agent, who has been in the hardware business for the last fifteen years and has a good connection amongst all the hardware trade in Quebec, wishes to secure an agency for a line of electrical specialties in that Province.
173. Vancouver.—A reliable firm of selling and purchasing agents in Vancouver asks to be put in touch with Toronto manufacturers looking for representation in British Columbia.
174. Copra Crushing Machinery.—A Canadian firm wishes to get into communication with a manufacturer who can supply photographs, sketches, designs and requirements of copra crushing machinery (used for crushing dry cocoanut meat).
175. Toys.—A Toronto firm of good standing is desirous of getting in touch with local toy manufacturers with the idea of representing them. Being in the toy business themselves, they intend to continue manufacturing and at the same time represent and market other manufacturers' lines.

FOREIGN TRADE ENQUIRIES.

176. Export to Norway.—A gentleman who is a member of a well recommended Norwegian firm is looking for agencies of Canadian goods suitable for export to Norway. He will be in Canada until the end of November, and will arrange to call on seriously interested manufacturers.
177. Merchant Bar Iron.—A London firm wish to get in touch with Canadian manufacturers of merchant bar iron.
178. Cottons and other Goods.—A London firm interested in the import of all classes of goods from Canada, but particularly cottons, wish to get in touch with Canadian shippers.
179. Paper.—A Glasgow firm who are buyers for one of the largest paper distributors of India, in addition to having an extensive home trade, ask for quotations on all classes of paper, specially news printings and cream laids, quantities 50 tons at a time.
180. Weaving Wire.—A Glasgow firm ask to be placed in touch with exporters of mild steel galvanized and iron weaving wire suitable for making wire gauze.
181. Electric Welding Wire.—A Glasgow firm ask to be placed in touch with exporters of the above.
182. Hairpin Wire.—A Glasgow firm is in the market for the above.
183. Weaving Wire.—A Glasgow firm makes inquiry for the above.
184. Tinned Mattress Wire.—A Glasgow firm asks to be placed in touch with exporters of the above.
185. Wire Rods.—A Glasgow firm is in the market for the above.
186. Woollen Goods, Furs, Etc.—A London firm of manufacturers' agents, importers and exporters, are desirous of securing the agencies for Canadian manufacturers of woollen goods, furs, jewellery, watches, optical goods, and leather goods.
187. Automobile Accessories.—A Glasgow firm ask to be placed in communication with exporters of automobile lamps, tires, plugs, mechanical and electrical horns, etc.
188. Wire Nails.—A Glasgow firm who have branches in India and Australia ask for sources of supply of the above, with a view to arranging export to these countries.
189. Sheet Steel, Etc.—A Glasgow firm, who have branches in India and Australia, ask for sources of supply of the above, with a view to arranging export to these countries.
190. Confectionery.—A Glasgow firm who have already placed large orders for assorted chocolates with Canada would like to hear from exporters of white peppermint creams, penny or twopenny confectioners' novelties, cream caramels, marshmallows, etc.
191 Asbestos Woven Cloth.—A Stirling firm makes enquiry as to the possibility of securing supplies of the above from Canada.
192. Weaving Wire.—A Glasgow firm are in the market for soft mild steel weaving wires in white annealed tinned and galvanized qualities, in sizes from 20 W.G. to 40 S.W.G., .0048 diameter.
193. China.—We have an enquiry from a gentleman who states that he has lived in China for five years and who desires to return as the direct representative of some Canadian manufacturer. He has served as Chinese interpreter with the British Army in France. His references are good.
194. Rotterdam.—An agent in Rotterdam desires to be put in touch with Canadian suppliers of copper, chemicals, leather, lime, marble, mica, oils and pulp.
195. Automobiles and Accessories.—A gentleman well known in the motor trade in England wishes to secure agencies for Canadian automobiles and accessories.
196. Belgium, Bohemia and Central Europe.—An agent, well connected on the continent, wishes agencies and quotations for Belgium, Bohemia and Central Europe from Canadian firms who can supply the following: Bicycle saddles and chains, agricultural machinery, raw material of all kinds, tinned meat and fish.
197. Hardware.—A gentleman in London, with good connection and references, asked to be placed in communication with Canadian hardware manufacturers with a view to securing agencies for London.
198. Hardware and Manufactured Goods.—A reliable London firm asks to be put in touch with leading Canadian firms to whom they could submit detailed requirements and obtain catalogues and samples of their productions.
199. Italy.—An Italian firm who are agents for an old established and well-known London firm asks to be put in touch with Canadian firms who can export the following articles: Agricultural machines of all qualities, lime phosphates, and fish, dry and salted.
200. Bermuda and the West Indies.—A Canadian, manufacturers' agent, well recommended, is leaving at the beginning of November for Bermuda, the British West Indies and South America, and desires to get in touch with any Canadian manufacturers who would be disposed to take advantage of this opportunity to promote the sale of their products. France, Spain, and Central and South America.
201. A Canadian, 31 years of age, who knows English, Spanish, French and Portuguese well, and who now holds an important secretarial post with the Leopoldina Railway, the largest British owned railway in Brazil, is desirous of getting in touch with manufacturers who are considering representation in France, Spain or Central and South America. This gentleman has been for several years in Porto Rico and the Spanish West Indies and is highly recommended.
202. Geneva, Italy.—A firm in Geneva, Italy, desires to secure the names and addresses of Canadian firms who are in a position to export the following articles: Chemicals, minerals, fabrics, lumber, iron and steel.
203. South Africa.—A South African firm is interested in the following articles: Wheel material, i.e., elm naves sizes, from 6 x 8 to 9 x 10; hickory spokes from 1½ inches to 2 inches; hickory rims from 1½ inches x 1½ inches x 2 ft. 6 inches to 2¼ inches x 2¼ inches x 4 ft. 6 inches, including all intermediate widths, depths and heights. Trimming hides for upholstering carts and motor cars; leather cloth similar to rexine, pegamoid or moroccoline, cheap to good quality in 54-inch and 60-inch widths. Hood material 72-inch widths waterproof and also simliar kind of material for cushion covers; household enamelware and lumber, including pine shelving, carpenters clear in half inch and 1 inch x 12 inch to 16 inches x 12 inches and up.
204. Oil Stoves.—A Liverpool firm is prepared to place large orders for the above, for which a strong demand exists.
205. Pianos.—A Liverpool firm asks to be placed in touch with exporters of the above.
206. White Powdered Arsenic.—A Liverpool firm asks to be placed in touch with exporters of the above.
207. Ochres.—A Liverpool firm asks to be placed in touch with exporters of ochres.
208. Mattress Wire.—A Liverpool firm are open to purchase the above 23-gauge mainly.
209. Maple Flooring.—A Liverpool firm asks for offers of 100,000 feet of the above, 1 inch x 4½ inch, finishing 13-16 inches x 4 inches face, planed, tongued and grooved.
210. Antwerp.—A firm in Antwerp desires to be put in touch with Canadian manufacturers of the following: Chocolate, sugar, condensed milk, and flour. They are in a position to place large quantities, having regular requests on the subject.
211. Swansea.—A British Company, which does a trade with the wholesale and retail confectioners, grocers and chemists, is specially interested in securing the representation of some Canadian factory which can supply chocolates, gums, lozenge and compressed lozenge tablets, in bulk or packed.
212. Alsace-Lorraine.—A correspondent, highly recommended, is anxious to obtain the representation for the Alsatian Provinces of lines of Canadian food products. He states that food products are not represented to any extent in Alsace, and the fact of starting an export trade in these lines would surely lead to enquiries for other Canadian products. He is willing to put himself entirely at the disposition of these firms under whatever mode of payment they have in mind, and would be pleased to receive samples and prices plus rate of exchange f.o.b. of the following: Meats, smoked ham and shoulders, smoked sausages, etc.
213. Spain.—A correspondent who expects to sail for Spain shortly and to remain there for six weeks or more desires to be intrusted with some commission in that country. He is experienced in commercial matters, and is able to prepare trade reports and statistics.
214. Belgium.—A commission agent in Belgium who has had twenty years' experience in exporting to Africa, wishes to get in touch with Canadian firms who can supply the following: Enamelled products; cotton tissues and mixed cloth, including ready-made clothes, shirts, vests and cotton jackets intended for negro workmen. These goods were formerly supplied to the Congo by Germany.
215.—Belgium.—A correspondent in Brussels asks to be put in touch with leading Canadian firms manufacturing bookbinding machines, machines for the manufacture of office furniture, pencils, penholders and fountain pens.
216.—Foodstuffs, Linseed Meal.—A firm in Christiania asks to be put in touch with Canadian exporters of the above.
217. Electrical Machinery.—A firm in Milan, Italy, wishes to get in communication with Canadian exporters of the following: Motor engines, dynamos, transformers, voltameters, ampermeters and insulators.

Buyers' Guide to Canadian Manufactures

List of Articles which will Enable the Purchaser to Know the Manufacturers of Made-in-Canada Goods. For Rates of Insertion in this Department write to the Advertising Manager of INDUSTRIAL CANADA, C.M.A., Toronto, Ont.

ABATTOIR MACHINERY AND SUPPLIES
*The John Whitfield Company, Toronto, Ont.
ABRASIVES
*Coralox, Limited, Hamilton, Ont.
*Canadian Hart Wheels, Limited, Hamilton, Ont.
*Dominion Abrasive Wheel Co., New Toronto, Ont.
ACCOUNT BOOKS
*The Brown Bros., Ltd., Toronto.
ACCUMULATORS, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.
ACETYLENE GAS
*The Prest-O-Lite Company of Canada, Ltd., Toronto, Ont.
ACETYLENE GAS BURNERS
Economic Acetylene Burner Co., Toronto, Ont.
*The Prest-O-Lite Company of Canada, Ltd., Toronto, Ont.
ACID PROOF COATINGS
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
ACIDS
*The Grasselli Chemical Co., Ltd., Toronto.
*The Nichols Chemical Co., Ltd., Montreal, Que.
ADVERTISING NOVELTIES
Lawson & Jones, Ltd., London, Ont.
AERATED BEVERAGES
Charles Gurd & Co., Ltd., Montreal, Que.
J. J. McLaughlin, Ltd., Toronto.
AIR COMPRESSORS
*Canadian Ingersoll-Rand Co., Montreal, Que.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
AIR DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
ALCOHOL
*Canadian Industrial Alcohol Company, Ltd., Montreal, Que.
Hiram Walker & Sons, Limited, Walkerville, Ont.
ALUMINUM
*Northern Aluminum Co., Ltd., 1805 Traders Bank, Toronto,
ALUMINUM CASTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.
AMMONIA
Canadian Ammonia Co., Ltd., Toronto, Ont.
ANCHORS, all steel
Beauchemin & Fils, Ltd., Sorel, Que.
ANGLE BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, Que.
*The Steel Company of Canada, Ltd., Hamilton, Ont.
ARSENIC
*Deloro Smelting & Refining Co., Limited, Deloro, Ont.
ARTIFICIAL LIMBS
Chesley Artificial Limb Co., Ltd., Hanstport, N.S.
ASBESTOS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
ASBESTOS SHEATHING
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
ASBESTOS SHEET AND PISTON PACKINGS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
ASBESTOS STEAM PIPE AND BOILER COVERINGS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
ASBESTOS TEXTILES
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
ATTACHMENT PLUGS
*Crouse-Hinds Co., Ltd., Toronto.
AUTOGRAPHIC REGISTERS
*Autographic Register Co., Ltd., Montreal, Que.
AUTOGRAPHIC REGISTER SYSTEMS
Business Systems, Ltd., Toronto.
AUTOMOBILE ACCESSORIES
*McKinnon Industries Limited, St, Catharines, Ont.
*Northern Electric Co., Limited, Montreal, Que.
*Tallman Brass & Metal Co., Hamilton, Ont.
AUTOMOBILE PARTS
*Dominion Forge & Stamping Co., Walkerville, Ont.
*McKinnon Industries Limited, St. Catharines, Ont.
AWNING CORD (cotton)
Hamilton Cotton Co., Hamilton, Ont.
AXLES
Canada Forge Co., Ltd., Welland, Ont.
Guelph Spring & Axle Co., Ltd., Guelph, Ont.
AXLES, carriage and automobile
Guelph Spring & Axle Co., Ltd., Guelph, Ont.
BABBITT METAL
Alonzo W. Spooner, Ltd., Port Hope, Ont.
*Hoyt Metal Co., Toronto, Ont.
*The Canada Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
BACON
E. W. Fearman Co., Ltd., Hamilton, Ont.
BAGS
*Scythes & Co., Ltd., Toronto.
BAGS, Cotton
The Canadian Bag Co., Limited, Montreal, Que.
BAGS, jute
The Canadian Bag Co., Limited, Montreal, Que.
*Scythes & Co., Ltd., Toronto.
BAGS, travelling
J. Eveleigh & Co., Ltd., Montreal.
Lamontague, Ltd., Montreal, Que.
The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.
BAND RESAWS
*Canada Machinery Corporation, Limited, Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
BAND SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
BANK FITTINGS
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.
BANK AND OFFICE RAILINGS AND CAGES
*Canada Wire and Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*The Geo. B. Meadows, Toronto, Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
BANK SIGNS AND FITTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.
BARRELS, steel, and containers
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
BARS, iron
London Rolling Mill Co., Ltd., London, Ont.
BARS, steel
London Rolling Mill Co., Ltd., London, Ont.
BASEBALL GOODS
A. J. Reach Co., Brantford, Ont.
BATHS, enamelled
Amherst Foundry Co., Ltd., Amherst, N.S.
BATTERIES, dry
The Canadian National Carbon Co., Ltd., Toronto, Ont.
BATTERIES, Flashlight
The Canadian National Carbon Co., Ltd., Toronto, Ont.
BATTERIES, Storage
The Canadian National Carbon Co., Ltd., Toronto, Ont.
BEARINGS
*The Chapman Double Ball Bearing Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
BEARINGS, bronze
*Tallman Brass & Metal Co., Hamilton, Ont.
BEARINGS, pillow block and upright
*Canadian Fairbanks-Morse Company, Ltd., Montreal, Que.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
BEDS, camp folding
*Otterville Mfg. Co., Ltd., Otterville, Ont.
BEEF
E. W. Fearman Co., Ltd., Hamilton, Ont.
BELTING, chains
*Canadian Link-Belt Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
BELTING, elevator
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
BELTING, leather
The Beardmore Belting Co., Ltd., Toronto, Ont.
*J. L. Goodhue & Co., Danville, Que.
*Sadler & Howarth, Montreal.
*The D. K. McLaren Belting Co., Ltd., Montreal, Que.
*The J. C. McLaren Belting Co., Ltd., Montreal, Que.
BELTING, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha and Rubber Ltd., Toronto, Ont.
BELTING, stitched cotton duck
*Dominion Belting Co., Ltd., Hamilton, Ont.
BENT GOODS
The Crown Lumber Co., Woodstock, Ont.
BICYCLES AND ACCESSORIES
*Canada Cycle and Motor Co., Ltd., Toronto, Ont.
BISCUITS
The Montreal Biscuit Co., Montreal, Que.
BLACK SHEETS
*A. C. Leslie & Co., Montreal, Que.
BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
J. Walsham & Son, Ltd., Bolton, Ont,
BLANKETS, horse
Slingsby Mfg. Co., Ltd., Brantford, Ont.
J. Walsham & Son, Ltd., Bolton, Ont.
BLASTING ACCESSORIES
Canadian Explosives, Ltd., Montreal, Que.
BLEACHING POWDER
Canadian Salt Co., Ltd., Windsor Ont.
BLOWERS
*Sheldons, Ltd., Galt, Ont.
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
BOARDS, paper, fibre, press
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
BOATS OF ALL KINDS
Peterboro Canoe Co., Ltd., Peterboro, Ont.
BOBBINS
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
BOILER COMPOUND
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
BOILER COMPOUND AND OILS
Electric Boiler Compound Co., Ltd., Guelph, Ont.
BOILER LININGS AND COVERINGS
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
BOILERS
*M. Beatty & Sons, Ltd., Welland, Ont.
*Darling Bros., Montreal, Que.
*Goldie & McCulloch Co., Limited, Galt, Ont.
*Lauzon Engineering Ltd., Levis, Que.
*E. Leonard & Sons, Ltd., London, Ont.
J. & R. Weir, Montreal, Que.
Taylor-Forbes Co,, Ltd., Guelph,
*The Waterous Engine Works Co, Ltd., Brantford, Ont.
BOILERS, hot water or steam
Steel & Radiation Ltd., Toronto.
Warden King, Ltd., Montreal.
BOILERS, steam
Canadian Ingersoll-Rand Co., Sherbrooke, Que.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
BOILERS, steam and brass work
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
BOILER STANDS
Anthes Foundry Ltd., Toronto.
BOLSTERS
*Canadian Car & Foundry Co., Ltd., Montreal, Que.
BOLTS AND NUTS
*The Canadian Tube & Iron Co., Ltd., Montreal, Que.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Company of Canada, Ltd., Hamilton, Ont.
Starr Mfg. Co., Ltd., Dartmouth, N.S.
BOOKBINDERS
R. G. McLean, Toronto.
*The Brown Bros., Ltd., Toronto.
The Mortimer Co., Ltd., Ottawa, Ont.
BOOKCASES
*Office Specialty Mfg. Co., Ltd,, Newmarket, Ont.
BOOKCASES, sectional (Gunn)
The George McLagan Furniture Co., Ltd., Stratford, Ont.
BOOKLETS
R. G. McLean, Toronto.
BOOKS, blank
*The Brown Bros., Ltd., Toronto.
BOOTS AND SHOES
Ames-Holden-McCready, Limited, Montreal, Que.
J. Leckie Co., Ltd.
The John Ritchie Co., Ltd., Quebec, Que.
BOXES
*Crouse-Hinds Co., Ltd., Toronto.
BOXES, cellular board
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls.
BOXES, rattle and soap
The Arlington Co. of Canada, Ltd., Toronto, Ont,
BOXES, steel shop
*Steel Trough and Machine Co., Ltd., Tweed, Ont.
BOXES AND SHOOKS, wooden
The C. Beck Mfg. Co., Ltd., Penatanguishene, Ont.
BOXES, wooden
G. & J. Esplen, Montreal, Que.
Barchard & Co., Ltd., Toronto.

*For Display Advertisement see Index, Page 37

BOXBOARDS, for making paper boxes
*Canada Boxboard Co., Limited, Montreal, Que.

BRAIDS AND TRIMMINGS
The Moulton Mfg. Co., Limited, Montreal, Que.

BRAKE SHOES
*Canadian Hart Wheels, Limited, Hamilton, Ont.

BRAKE SHOE BACKS
*The John Whitfield Company, Toronto, Ont.

BRANDS, burning
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

BRASS BOLTS AND NUTS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS AND BRONZE WIRE
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

BRASS, BRONZE and ALUMINUM LETTERS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS ENGRAVERS
Pritchard, Andrews Co, of Ottawa, Ltd., Ottawa, Ont.

BRASS FOUNDERS AND FINISHERS
*The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS GOODS
*The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Mueller Mfg. Co., Sarnia, Ont.
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
*The Kerr Engine Co., Limited, Walkerville, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS PLATES
Geo. Booth & Son, Toronto.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS RODS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS RODS, SHEETS AND PLATES
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.

BRASS SHEETS AND PLATES
*Dominion Copper Products Company, Ltd., Montreal, Que.

BRASS SIGNS AND MEMORIALS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS TUBING, seamless
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Company, Ltd., Montreal, Que.

BRASS WIRE
Canadian Seamless Wire Co., Ltd., Toronto.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS WORK, church
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

BRASS WORK, special
Bawden Machine Co., Ltd., Toronto, Ont.
*H. Mueller Mfg. Co., Ltd., Sarnia, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BRICK
National Brick Co. of Laprairie, Laprairie, Que.
Port Credit Brick Co., Port Credit, Ont.
The Citadel Brick & Paving Block Co., Ltd., Quebec, Que.

BRICK, enamel
National Brick Co. of Laprairie, Laprairie, Que.

BRICK, pressed
National Brick Co. of Laprairie, Laprairie, Que.
The Citadel Brick & Paving Block Co., Ltd., Quebec, Que.

BRICK, rubbing
*Canadian Hart Wheels, Limited, Hamilton, Ont.

BRICK, sewer.
National Brick Co. of Laprairie, Laprairie, Que.

BRIDGES, Railway and Highway
*Hamilton Bridge Works Co., Ltd., Walkerville, Ont.
*The Canadian Bridge Co., Ltd., Hamilton, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*Dominion Bridge Co., Montreal.
*Mackinnon Steel Co., Ltd., Sherbrooke, Que.
*Manitoba Bridge & Iron Works, Ltd., Winnnpeg, Man,

BROOMS
Simms, T. S., & Co., Limited, St. John, N.B.
Stevens-Hepner Co., Limited, Port Elgin, Ont.

BRONZE SHEETS AND PLATES
*Dominion Copper Products Company, Ltd., Montreal.

BRONZE SHEETS, RODS, PLATES
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.

BRONZE TUBING, seamless
*Dominion Copper Products Company, Limited, Montreal,

BRUSHES
Simms, T. S., & Co., Limited, St. John, N.B.
Stevens-Hepner Co., Ltd., Port Elgin, Ont.

BRUSHES, carbon
Canadian National Carbon Co., Ltd., Toronto.

BUCKET TANKS
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*The Bennett & Wright Co., Ltd., Toronto, Ont.

BUCKLES, shoe and coat
Parmenter & Bulloch Co., Limited, Gananoque, Ont.

BUCKLES, harness and trunk
*McKinnon Industries, Ltd., St. Catharines, Ont.

BUILDING BLOCKS, vitrified, salt glazed
Standard Clay Products, Ltd., St. Johns, Que.

BUILDING FELT AND PAPER
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont,
*The Barrett Co., Ltd., Toronto and Montreal.

BURLAPS
The Canadian Bag Co., Limited, Montreal, Que.
*Scythes & Co., Ltd., Toronto.

BURLAPS, decorative
Dominion Oil Cloth Co., Limited, Montreal, Que.

CABLE ACCESSORIES
*Crouse-Hinds Co., Ltd., Toronto.

CABLES, electric light, power, telephone and telegraph
*Standard Underground Cable Co. of Canada, Ltd,, Hamilton, Ont.

CABLES, transmission and telephones
*Eugene F. Phillips Electrical Works, Ltd., Montreal, Que.

CABLES, transmission and cable
*Northern Electric Co., Ltd., Montreal, Que.

CABLES, wire
The Dominion Wire Rope Co., Ltd., Montreal, Que.
*The B. Greening Wire Co., Ltd., Hamilton, Ont.

CALENDARS, ADVERTISING NOVELTIES, etc.
Lawson & Jones, Ltd., London.

CAMERAS
Canadian Kodak Co., Ltd., Toronto, Ont.

CAMPERS' OUTFITTERS
Slingsby Mfg. Co., Ltd., Brantford, Ont.

CANADA SILVER
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.

CANOES
Peterboro Canoe Co., Ltd., Peterboro, Ont.
*Canadian Canoe Co., Ltd., Peterboro, Ont.

CANS, baking powder, etc.
American Can Co., Montreal (Que.) and Hamilton (Ont.).
A. R. Whittall Can. Co., Ltd., Montreal, Que.
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CANS, fruit
American Can Co., Montreal (Que.) and Hamilton (Ont.).
A. R. Whittall Can. Co., Ltd., Montreal, Que.
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CANS, iron, lead and putty
A. R. Whittall Can. Co., Ltd., Montreal, Que.

CANS, tin
A. R. Whittall Can Co., Ltd., Montreal, Que.
American Can Co., Montreal (Que.) and Hamilton (Ont.).
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CANVAS
*Scythes & Co., Ltd., Toronto, Ont.

CAPS, cloth
John W. Peck & Co., Ltd., Montreal, Que.

CAPS FOR HUBS
*McKinnon Industries, Ltd., St. Catharines, Ont.

CARBIDE
*Canada Carbide Co., Ltd., Montreal, Que.
*Union Carbide Co. of Canada, Ltd. Works, Welland, Ont. Head Office, Toronto, Ont.

CARBONS, electric
Canadian National Carbon Co., Ltd., Toronto, Ont.

CARBONS (headlight)
*Crouse-Hinds Co., Ltd., Toronto.

CARBONIC ACID GAS
Canadian Carbonate Co., Montreal.

CARD RECORD SYSTEMS
Lowe-Martin Co., Ltd., Ottawa, Ont.
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

CARPETS AND RUGS
Toronto Carpet Mfg. Co., Limited, Toronto.

CARPETS AND RUGS, Axminster and ingrain
Toronto Carpet Mfg. Co., Ltd.

CARPETS AND RUGS, Brussels and Wilton
Toronto Carpet Mfg. Co., Ltd., Toronto, Ont.

CARPET FELTS, plain and corrugated
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.

CARPET YARNS, worsted and wool
Toronto Carpet Mfg. Co., Ltd., Toronto, Ont.

CARRIAGE CASTINGS
*McKinnon Industries, Ltd., St. Catharines, Ont.

CARRIAGES, baby, etc.
Canada Furniture Manufacturers. Ltd., Woodstock, Ont.

CARRIERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.

CARRIERS, box and barrel
*Canadian Mathews Gravity Carrier.

CARRIERS, brick
*Canadian Mathews Gravity Carrier Co., Limited, Toronto.
*Richards-Wilcox Canadian Co., Ltd., London, Ont.

CARS
*Canadian Car & Foundry Co., Ltd., Montreal, Que.
*National Steel Car Co., Ltd., Hamilton, Ont.

CARS, industrial
Hammant Steel Car & Engineering Works, Hamilton, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.

CARTONS, lithographed
Harris Lithographing Co., Ltd., Toronto, Ont.

CASTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.

CASTINGS, Alloy
*The Electric Steel & Metals Co., Ltd., Welland, Ont.

CASTINGS, aluminum
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Crouse-Hinds Co., Ltd., Toronto.
*Tallman Brass & Metal Co., Hamilton, Ont.

CASTINGS, brass
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Crouse-Hinds Co., Ltd., Toronto.
*Lauzon Engineering, Ltd., Levis, Que.
*Tallman Brass & Metal Co., Hamilton, Ont.

CASTINGS, brass and bronze
*Tallman Brass & Metal Co., Hamilton, Ont.

CASTINGS, grey iron
*Canadian Rumely Co., Ltd., Toronto, Ont.
*Crouse-Hinds Co., Ltd., Toronto.
*Dodge Mfg. Co., Toronto.
*Canadian Car & Foundry Co., Ltd., Montreal, Que.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*Wm. Kennedy & Sons, Ltd., Owen Sound, Ont.
*Lauzon Engineering, Ltd., Levis, Que.

CASTINGS, malleable iron
*Crouse-Hinds Co., Ltd., Toronto.
*Galt Malleable Iron Co., Ltd., Galt, Ont.

CASTINGS, steel
Beauchemin & Fils, Ltd., Sorel, Que.
*Canadian Steel Founderies, Ltd., Montreal, Que.
*Dominion Steel Foundry Co., Ltd., Hamilton, Ont.
*Electric Steel & Metals Co., Ltd., Welland, Ont.
*Hull Iron & Steel Foundry, Ltd., Hull, P.Q.
*Wm. Kennedy & Sons, Ltd., Owen Sound, Ont.

CATALOGUE MAKERS
Grip, Ltd., Toronto, Ont.

CATALOGUE COVERS, by new lithographing process
Harris Lithographing Co., Ltd., Toronto, Ont.

CAUSTIC SODA
Canadian Salt Co., Ltd., Windsor.

CAUSTICS
*Dominion Oil Co., Ltd., Hamilton.

CELLBOARD
Adams Cellboard Co., Toronto.

CEMENT GUNS
Steel & Radiation, Ltd., Toronto.

CEMENTS, High Temp.; plastic, liquid
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.

CENTRIFUGAL PUMPS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

CHAINS, for elevators, conveyors and drives
*Canadian Link-Belt Co., Toronto.

CHAINS, sling
*The John Whitfield Co., Toronto.

CHAIRS
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

CHAIRS, assembly hall
Stratford Mfg. Co., Ltd., Stratford, Ont.

CHAIRS, folding
Stratford Mfg. Co., Ltd., Stratford, Ont.

CHAIRS, rattan and upholstered
Imperial Rattan Co., Ltd., Stratford, Ont.

CHAIRS FOR AUTOMOBILES, camp, boat
*McKinnon Industries, Ltd., St. Catharines, Ont.

CHECKS, swing checks, etc.
*Mueller Mfg. Co., Ltd., Sarnia, Ont.

CHEMICALS
Canadian Laboratory Supplies, Ltd., Toronto, Ont.
*Dominion Oil Co., Ltd., Hamilton, Ont.
*The Grasselli Chemical Co., Ltd., Toronto, Ont.
*The Nichols Chemical Co., Ltd., Montreal, Que.

CHEMISTS, industrial
*Milton Hersey Co., Montreal.

CHICLETS AND CHEWING GUM
Canadian Chewing Gum Co., Ltd., Toronto, Ont.

CIRCULAR CUTTERS, solid steel
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.

CIRCULAR SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

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CLAM SHELL BUCKETS
*M. Beatty & Sons, Ltd., Welland, Ont.
CLOCKS, time
*International Business Machines Co., Ltd., Toronto.
CLOCKS, watchmen's
*The Bennett & Wright Co., Ltd., Toronto, Ont.
CLOSET SEATS
*Goderich Organ Co., Goderich,Ont.
CLOTHING
John W. Peck & Co., Ltd., Montreal, Que.
CLOTHING, leather and sheepskin lined coats
*A. R. Clarke & Co., Ltd., Toronto.
CLOTHING, Mackinaw
The Carss Mackinaw Clothing Co., Ltd., Orillia, Ont.
CLOTHES LINES, cotton
Hamilton Cotton Co., Hamilton, Ont.
CLUTCHES
*Dodge Mfg. Co., Ltd., Toronto.
CLUTCHES, conveyors
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
COAL
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Standard Fuel Co., Toronto, Ont.
COAL CUTTERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal.
COBALT OXIDE
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
The Coniagas Reduction Co., Ltd., St. Catharines, Ont.
COBALT METAL
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
COFFEE
S. H. Ewing & Sons, Montreal.
COLD DRAWN SHAPES, flats, squares and hexagons
*The Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*Union Drawn Steel Co.. Ltd., Hamilton, Ont.
COLD STORAGE DOORS
John Hillock & Co., Ltd., Toronto.
COLLAR BUTTONS
The Arlington Co. of Canada, Ltd., Toronto, Ont.
COLLARS
The Standard Shirt Co., Ltd., Montreal, Que.
COLLARS, coated linen
Parsons & Parsons Canadian Co., Hamilton, Ont.
COLLARS, shaft
Bond Engineering Co., Toronto.
COLORS
Brandram-Henderson, Ltd., Montreal, Que.
A. Ramsay & Son Co., Montreal.
COMBS, fine dressing and name
The Arlington Co. of Canada, Ltd., Toronto, Ont.
COMMERCIAL STATIONERY
*Brown Bros., Ltd., Toronto, Ont.
CONCRETE COATINGS, PAINTS, Etc.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
CONCRETE HARDENER AND WATERPROOFER
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
CONDUITS FOR INTERIOR WIRING
*Conduits Co., Ltd., Toronto, Ont.
CONDULET BOX FITTINGS
*Crouse-Hinds Co., Ltd., Toronto.
CONDULETS (marine)
*Crouse-Hinds Co., Ltd., Toronto.
CONFECTIONERY
Ganong Bros., Ltd., St. Stephens, N.B.
Moirs, Ltd., Halifax, N.S.
The Montreal Biscuit Co., Montreal, Que.
CONTAINER BOARD—strong container
Bathurst Lumber Co., Ltd., Bathurst, N.B.
CONTRACTOR'S PLANT
*M. Beatty & Sons, Ltd., Welland, Ont.
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Ingersoll-Rand Co., Sherbrooke, Que.
CONVEYORS
*Canadian Link-Belt Co., Toronto.
*Canadian Mathews Gravity Carrier Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
COPPER
*Eugene F. Phillips, Electrical Works, Ltd., Montreal, Que.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Consolidated Mining & Smelting Co. of Canada, Ltd., Toronto.
COPPER, SHEETS, PLATES, BARS, RODS
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto, Ont.
COPPER SHEETS AND PLATES
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Co., Ltd., Montreal, Que.
COPPERSMITHS
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
COPPER TUBING, seamless
*Dominion Copper Products Co., Ltd., Montreal, Que.
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
COPPER WIRE
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
CORKS
S. H. Ewing & Sons, Montreal, Que.
CORK CARPET
Dominion Oil Cloth Co., Ltd., Montreal, Que.
CORRUGATED PAPER BOXES
Adams Cellboard Co., Toronto.
Corrugated Paper Box Co., Ltd., Toronto, Ont.
*Hinde & Dauch Paper Co., Toronto, Ont.
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls,Ont.
CORUNDUM, artificial
*Coralox, Ltd., Hamilton, Ont.
CORSETS
Dominion Corset Co., Quebec, Que.
COTTONS
*Dominion Textile Co., Ltd., Montreal, Que.
*Montreal Cottons, Ltd., Valleyfield, P.Q.
COTTONADES
Hamilton Cotton Co., Hamilton, Ont.
COUPLERS
*Canadian Steel Foundries, Ltd., Welland, Ont.
COUPLINGS
Bond Engineering Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
CRANES
*Northern Crane Works, Walkerville, Ont.
*The Herbert Morris Crane and Hoist Co., Ltd., Niagara Falls, Ont.
CRANKSHAFTS
Canada Forge Co., Ltd., Welland, Ont.
*The John Whitfield Co., Toronto, Ont.
CREAM CHEESE, Ingersoll
The Ingersoll Packing Co., Ltd., Ingersoll, Ont.
CREAM SEPARATORS AND MILK CLARIFIERS
De Laval Dairy Supply Co., Peterboro, Ont.
The Renfrew Machinery Co., Ltd., Renfrew, Ont.
CREAMERY AND CHEESE FACTORY MACHINERY AND SUPPLIES
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
CREOSOTED MATERIALS
*The Barrett Co., Ltd., Toronto and Montreal.
CRUCIBLES, plumbago
Dominion Crucible Co., Ltd., Montreal, Que.
CRUSHED STONE
The Hagersville Contracting Co., Ltd., Hagersville, Ont.
CUPOLAS
*Sheldons, Ltd., Galt, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
CUPS, presentation
Standard Silver Co., Toronto, Ont.
CURLED HAIR
*Delany & Pettit, Ltd., Toronto.
CURTAINS, chenille
Hamilton Cotton Co., Hamilton, Ont.
CUTLERY
Standard Silver Co., Toronto, Ont.
CUTTERS, machine
*Pratt & Whitney Co., Dundas, Ont.
DASHES, for buggy and carriages
*McKinnon Industries, Ltd., St. Catharines, Ont.
DECALCOMANIA TRANSFERS
Canada Decalcomania Co., Toronto, Ont.
DECK PLUGS, electric marine
*Crouse-Hinds Co., Ltd., Toronto.
DENIMS
Hamilton Cotton Co., Hamilton, Ont.
DERAILS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
DESIGNERS
Ontario Engraving Co., Hamilton Ont.
DESIGNERS AND PRINTERS OF BOOKLETS, Etc.
Grip, Ltd., Toronto, Ont.
DESKS
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
DESICCATED VEGETABLES
Grahams, Ltd., Belleville, Ont.
DINING ROOM SUITES
The George McLagan Furniture Co., Ltd., Stratford, Ont.
DIES
*Butterfield & Co.. Rock Island, P.Q.
*Pratt & Whitney Co., Dundas, Ont.
*John Whitfield Co., Toronto.
DISINFECTING APPARATUS
Spramotor Co., London, Ont.
DOOR HANGERS
*Richards Wilcox Canadian Co., Ltd., London, Ont.
DOUBLETREES
*McKinnon Industries, Ltd., St. Catharines, Ont.
DREDGES
*M. Beatty & Sons, Ltd., Welland, Ont.
DRESSING, belt
Sadler & Haworth, Montreal, Que.
DRESS AND CLOAK TRIMMINGS
J. Henry Peters Co., 1 Mincing St., Toronto, Ont.
DRIFT BOLT DRIVERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
DRILL PRESSES
*Canada Machinery Corporation, Ltd., Galt, Ont.
DRILL SHARPENERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
DRILLS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*Pratt & Whitney Co., Dundas,Ont
DRILLS, pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
DRILLS, rock
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
DRIFT BOLTS OR SPIKES
London Rolling Mill Co., Ltd., London, Ont.
DROP FORGINGS.
*Canadian Billings & Spencer, Ltd., Welland, Ont.
*McKinnon Industries, Ltd., St. Catharines, Ont.
DROP HAMMERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
DRUMS, steel, and containers
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
DRY COLORS
P. D. Dods & Co., Ltd., Montreal.
The Imperial Varnish & Color Co., Ltd., Toronto.
R. C. Jamieson & Co., Ltd., Montreal, Que.
Standard Paint & Varnish Co. Ltd., Windsor, Ont.
DUMB WAITERS
Turnbull Elevator Mfg. Co., Toronto, Ont.
DURABLE WIRE ROPE
The Dominion Wire Rope Co., Ltd., Montreal, Que.
DYNAMITE
Canadian Explosives, Ltd., Montreal, Que.
DYNAMOS
Consolidated Electric Co., Ltd., Toronto, Ont.
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
DYNAMOS, plating
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
EIDERDOWN
Galt Knitting Co., Ltd., Galt, Ont.
ELECTRIC APPLIANCES
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
ELECTRICAL COMPOUNDS
Standard Paint Co. of Canada, Ltd., Montreal, Que.
ELECTRIC COOKING APPLIANCES
*Canadian General Electric Company, Ltd., Toronto.
ELECTRIC LAMPS
Packard Electric Co., Ltd., Toronto, Ont.
ELECTRIC PLATE WARE
Roden Bros., Ltd., Toronto, Ont.
ELECTRIC BRANDING TOOLS
*The Clemens Electrical Corporation of Canada, Ltd., Hamilton, Ont.
ELECTRIC RAILWAY EQUIPMENT
*Crouse-Hinds Co., Ltd., Toronto.
ELECTRODES, carbon
Canadian National Carbon Co., Ltd., Toronto, Ont.
ELECTROTYPING
Central Press Agency, Ltd., Toronto.
ELECTRICAL SUPPLIES
*Canadian General Electric Company, Ltd., Toronto, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
*Jones & Moore Electric Co., Ltd.,
*Northern Electric Co., Ltd., Montreal, Que.
ELECTRIC SOLDERING IRON
*The Clemens Electrical Corporation of Canada, Ltd., Hamilton, Ont.
ELECTRO-SILVER PLATED WARE
Standard Silver Co., Toronto, Ont.
ELEVATING MACHINERY
*Canadian Link-Belt Co., Toronto.
*Canadian Mathews Gravity Carrier Co., Toronto, Ont.
ELEVATORS
*Jenckes Machine Co., Sherbrooke, Que.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
Turnbull Elevator Mfg. Co., Toronto, Ont.
*The Waterous Engine Works Co., Ltd,, Brantford, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
ELEVATORS FOR ALL PURPOSES
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
ELEVATOR GATES AND DOORS
Turnbull Elevator Mfg. Co., Ltd., Toronto, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
ELEVATOR GUARDS
*The Geo. B. Meadows, Toronto. Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
*Canada Wire and Iron Goods Co., Hamilton, Ont.
EMERY DRESSERS AND STANDS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
EMERY GRINDERS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
EMERY WHEELS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
EMERY WHEEL GUARDS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

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ENAMELS
R. C. Jamieson & Co., Ltd., Montreal, Que.
The Imperial Varnish & Color Co., Ltd., Toronto, Ont.

ENAMEL MANUFACTURERS AND DECORATORS
Standard Paint & Varnish Co., Ltd., Windsor, Ont.

ENAMEL AND TIN WARE
McClary Mfg. Co., London, Ont.

ENGINES
*E. Leonard & Sons, London, Ont.
*Goldie & McCulloch Co., Lt., Galt, Ont.
J. & R. Weir, Montreal, Que.
*Lauzon Engineering, Ltd., Levis, Que.
*Sheldons, Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

ENGINES, gas and gasoline
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Goold - Shapley - Muir Co., Ltd., Brantford, Ont.
*Hamilton Motor Works, Ltd., Hamilton, Ont.
London Gas Power Co., Limited, London, Ont.
*Massey-Harris Co., Ltd., Toronto.

ENGINES, gasoline, tractor, plowing and threshing
*Sawyer-Massey Co., Ltd., Hamilton, Ont.

ENGINES, hoisting
*M. Beatty & Sons, Welland, Ont.
*The Waterous Engine Works Co. Ltd., Brantford, Ont.

ENGINES, marine, gasoline and kerosene
Bruce, Stewart & Co., Ltd., Charlottetown, P.E.I.

ENGINES, steam plowing and threshing
*Sawyer-Massey Co., Ltd., Hamilton, Ont.

ELECTRICAL AND GAS FIXTURES
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
*Tallman, Brass & Metal Co., Hamilton, Ont.

ELECTRIC HEATING APPLIANCES
*Canadian General Electric Co., Ltd., Toronto, Ont.

ENGRAVERS, photo
Grip, Ltd., Toronto, Ont.
Ontario Engraving Co., Hamilton, Ont.
The Mortimer Co., Ltd., Ottawa.

ENGRAVERS, half-tone
Grip, Ltd., Toronto.
Ontario Engraving Co., Hamilton, Ont.

ENGRAVERS, wood
Ontario Engraving Co., Hamilton, Ont.

ENGRAVERS AND PRINTERS steel plate
American Bank Note Co., Ottawa, Ont.

ENGRAVERS AND PRINTERS bank note
American Bank Note Co., Ottawa, Ont.

ENGRAVING
*J. L. Jones Engraving Co., Toronto, Ont.

ENGRAVING, copper and steel plate
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

ENSILAGE AND STRAW CUTTERS
J. Fleury's Sons, Aurora, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.

EVAPORATED APPLES
Grahams, Ltd., Belleville, Ont.

ENVELOPES
Barber-Ellis Co., Ltd., Toronto.
Canada Envelope Co., Montreal, Que.

EVENERS, for 2, 3, 4, 6 and 8 horses
*McKinnon Industries, Ltd., St. Catharines, Ont.

EXCELSIOR
*Delany & Pettit, Ltd., Toronto.

EXCELSIOR PADS
Parmenter & Bulloch Co., Ltd., Gananoque, Ont.

EXPERTS IN PATENT CAUSES
Ridout & Maybee, Toronto, Ont.

EXPLOSIVES, high
Canadian Explosives, Ltd., Montreal, Que.

FACE PLATE JAWS
Ker & Goodwin, Brantford, Ont.

FACTORY SUPPLIES, cheese and creamery
De Laval Dairy Supply Co., Ltd., Montreal, Que.

FANS
*Sheldons, Ltd., Galt, Ont.
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

FASTENERS, belt
*Sadler & Haworth, Montreal, Que.

FELTS, pulp and paper makers
Ayers, Ltd., Lachute Mills, P.Q.
*Beveridge Paper Co., Ltd., Montreal, Que.

FENCES AND GATES
*Dennis Wire & Iron Works Co., London, Ont.
*Canada Wire & Iron Goods Co., Hamilton, Ont.

FENCING AND GATES, woven wire
*Canada Wire and Iron Goods Co., Hamilton, Ont.

FENCING, wire
C. H. Johnson & Sons, Ltd., Montreal, Que.

FENDERS, for buggy and carriages
*McKinnon Industries, Ltd., St. Catharines, Ont.

FIBRE PAILS
*The E. B. Eddy Co., Ltd., Hull, Que.

FIBRE, Vulcanized
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.

FIBREBRICK, Plastic, jointless
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.

FILES
Henry Disston & Sons, Ltd., Toronto, Ont.
*The Nicholson File Co., Port Hope.

FILING CABINETS
*Office Specialty Co., Newmarket, Ont.

FILING EQUIPMENT, wood & steel
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

FILING SYSTEMS
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
Lowe-Martin Co., Ltd., Ottawa, Ont.

FIRE ALARMS
*Northern Electric Co., Ltd., Montreal, Que.

FIRE BRICK
Dominion Fire Brick & Clay Products, Ltd., Moose Jaw, Sask.

FIRE BRICK AND CLAY
Dominion Fire Brick & Clay Products, Ltd., Moose Jaw, Sask.

FIRECLAY
Jas. W. Foley & Co., St. John, N.B.

FIRE DOOR HARDWARE
Richards Wilcox Canadian Co., Ltd., London, Ont.

FIRE DOORS
*A. B. Ormsby Co., Ltd., Toronto.
*The Pedlar People, Ltd., Oshawa, Ont.

FIRE ENGINES
*Waterous Engine Works Co., Ltd., Brantford, Ont.

FIRE ESCAPES
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.

FIRE EXTINGUISHERS
*A. B. Ormsby Co., Ltd., Toronto.
*Booth-Coulter Copper & Brass Co., Ltd., Montreal, Que.
*The Bennett & Wright Co., Ltd., Toronto, Ont.

FIRE FIGHTING APPARATUS
*Waterous Engine Works Co., Ltd., Brantford, Ont.

FIRE HOSE
*Canadian Consolidated Rubber Co. of Canada, Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber, Ltd., Toronto, Ont.

FIRE PREVENTION MATERIAL
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*Eureka Mineral Wool & Asbestos Co., Toronto.
*The Bennett & Wright Co., Ltd., Toronto, Ont.

FIRE PROOF WINDOWS AND DOORS
*A. B. Ormsby Co., Ltd., Toronto.
*Pedlar People, Ltd., Oshawa, Ont.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.

FIRE SPRINKLER SYSTEMS
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
*Purdy Mansell Co., Toronto, Ont.
*H. G. Vogel Co., Montreal, Que.

FIRE AND WATER DEPARTMENT
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
The Garth Co., Montreal, Que.

FISH, Atlantic Sea-Foods
Maritime Fish Corporation, Ltd., Montreal, Que.

FITTINGS FOR SOIL PIPE
Anthes Foundry, Ltd., Toronto.

FITTINGS, steam
Warden King Ltd., Montreal, Que.

FIXTURES
*Crouse-Hinds Co., Ltd., Toronto.

FLAGS
*Scythes & Co., Ltd., Toronto, Ont.

FLANGES, for wheels
*McKinnon Industries, Ltd., St. Catharines, Ont.

FLOODLIGHTS, electric
*Crouse-Hinds Co., Ltd., Toronto.

FLOORING, hardwood
Seaman Kent Co., Ltd., Meaford, Ont.

FLOUR MILL MACHINERY
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.

FLUE LINERS
Standard Clay Products, Ltd., St. Johns, Que.

FORGES
*Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
*Sheldons, Ltd., Galt, Ont.

FORGINGS
Canada Forge Co., Ltd., Welland, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*McKinnon Industries, Ltd., St. Catharines, Ont.
*The John Whitfield Co., Toronto.

FORGINGS, drop
*Canadian Billings & Spencer, Ltd., Welland, Ont.
*Dominion Forge & Stamping Co., Walkerville, Ont.
*McKinnon Industries, Ltd., St. Catharines, Ont.

FOUNDRY EQUIPMENT
*Northern Crane Works, Ltd., Walkerville, Ont.

FOUNTAIN FRUITS AND JUICES
J. J. McLaughlin, Ltd., Toronto.

FOUNTAINS, drinking
*Mueller Mfg. Co., Ltd., Sarnia, Ont.

FRICTION CLUTCH PULLEYS
*Dodge Mfg. Co., Ltd., Toronto.

FROGS AND CROSSINGS, manganese
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.

FUEL
Standard Fuel Co., Toronto, Ont.

FUR GARMENTS, men's and women's
Holt, Renfrew, Ltd., Quebec.

FUR GOODS
John W. Peck & Co., Ltd., Montreal, Que.

FUR TRIMMINGS, ornaments and buttons
J. Henry Peters Co., 1 Mincing St., Toronto, Ont.

FURNACES
McClary Mfg. Co., London, Ont.
The Jas. Smart Mfg. Co., Ltd., Brockville, Ont.

FURNITURE, hall
The George McLagan Furniture Co., Ltd., Stratford, Ont.

FURNITURE, office
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.

FURNITURE, reed and rattan
Imperial Rattan Co., Ltd., Stratford, Ont.

FUSE BOXES
*Crouse-Hinds Co., Ltd., Toronto.

FUSE PLUGS AND FUSES, refillable
*The Clemens Electrical Corporation of Canada, Ltd., Hamilton, Ont.

FUSES
*Economy Fuse & Mfg. Co., Montreal, Que.

GALVANIZED IRON
*A. C. Leslie & Co., Montreal.

GALVANIZED SHEETS
*Dominion Sheet Metal Co., Hamilton, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

GALVANIZERS
Acme Stamping & Tool Works, Ltd., Hamilton, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*The Pedlar People, Ltd., Oshawa.
*McKinnon Industries, Ltd., St. Catharines, Ont.

GASOLINE ENGINES
*Ontario Wind & Pump Co., Ltd., Toronto, Ont.
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
London Gas Power Co., London, Ont.

GASOLINE FIRE ENGINES
*Waterous Engine Works Co., Ltd., Brantford, Ont.

GASOLINE STORAGE SYSTEMS, special underground
S. F. Bowser & Co., Toronto.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.

GASOLINE
*The Imperial Oil Co., Ltd., Toronto, Ont.

GAUGES
*Brown Engineering Corporation, Toronto, Ont.
*John Whitfield Co., Toronto.

GEARS, cut
*Brown Engineering Corporation, Toronto, Ont.
*Hamilton Gear and Machine, Toronto.
*Winnipeg Gear & Engineering Co., Ltd., Winnipeg, Man.
*The John Whitfield Co., Toronto.

GELATINE
Canada Gelatine Co., Ltd., Brantford, Ont.

GENERATORS
*Canadian Crocker - Wheeler Co., Ltd., St. Catharines, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.

GENERATORS, electric
*Canadian General Electric Co., Ltd., Toronto.

GILDING METAL
*Dominion Copper Products Co., Ltd., Montreal, Que.

GLASSWARE
Dominion Glass Co., Ltd., Montreal, Que.

GLASSWARE, cut
Roden Bros., Ltd., Toronto.

GLASS FOR BUILDINGS
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.

GLASS BENDERS
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.

GLASS, mirror
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.

GLOVES AND MITTS
*A. R. Clarke & Co., Ltd., Toronto.
Craig, Cowan Co., Ltd., Toronto.

GLUE
Canada Glue Co., Ltd., Brantford, Ont.
*Delany & Pettit, Ltd., Toronto.

GOLD-FILLED WIRE AND PLATE
Canadian Seamless Wire Co., Toronto, Ont.

GOLD AND SILVER REFINERS
Canadian Seamless Wire Co., Toronto, Ont.

GRAIN CRUSHERS, rapid, easy
J. Fleury's Sons, Aurora, Ont.

GRAPE JUICE
J. J. McLaughlin, Ltd., Toronto.
The Welch Co., Ltd., St. Catharines, Ont.

*For Display Advertisement see Index, Page 37

GRATES
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
GRATES, revolving, anticlinker
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
GRAVITY CARRIERS
*Canadian Mathews Gravity Carrier Co., Toronto, Ont.
GREASES
*Dominion Oil Co., Ltd., Hamilton, Ont.
GRILLES, metal
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
GRINDER, bench
Bond Engineering Co., Toronto.
GRINDERS, portable
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
GRINDERS, pedestal and bench
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
GRINDING AND POLISHING MACHINERY
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
GRINDING WHEELS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
*The Dominion Abrasive Wheel Co., Ltd., New Toronto, Ont.
GRINDSTONES
*Richards - Wilcox Canadian Co., Ltd., London, Ont.
GUARDS, condulet
*Crouse-Hinds Co., Ltd., Toronto.
GUNN SECTIONAL BOOKCASES
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
GUY ANCHORS
B. J. Coghlin Co., Ltd., Montreal.
GUL RODS
*Crouse-Hinds Co., Ltd., Toronto.
GYPSUM, crushed
*Albert Mfg. Co., Hillsborough, N.B.
GYPSUM PRODUCTS
*Manitoba Gypsum Co., Ltd., Winnipeg, Man.
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
HACK SAW BLADES AND FRAMES
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HACK SAW MACHINES
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HALL FURNITURE
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
HAMS
F. W. Fearman Co., Ltd., Hamilton, Ont.
HAMES, steel and iron
*McKinnon Industries, Ltd., St. Catharines, Ont.
HANDLES (axe, pick, sledge hammers, etc.)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.
HANDLES, wood
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
*Toy products, Ltd., Farm Point, Que.
HAND SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HANGERS
Bond Engineering Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
HARDWARE
*Richards - Wilcox Canadian Co., Ltd., London, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.
The Jas. Smart Mfg. Co., Ltd., Brockville, Ont.
HARNESS
Lamontagne, Ltd., Montreal, Que.
HATS, men's straw
The Crown Hat Co., Ltd., Galt, Ont.
HARNESS HARDWARE
*McKinnon Industries, Ltd., St. Catharines, Ont.
HATS, ladies' and children's straw
The Crown Hat Co., Ltd., Galt, Ont.
HATS, ladies' and children's felt and beaver
The Crown Hat Co., Ltd., Galt, Ont.
HATS, ladies' felt and straw
Toronto Hat Mfg. Co., Toronto.
HAULAGE, wire rope
The Dominion Wire Rope Co., Ltd., Montreal, Que.
HEADING SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HEADLIGHT, electric
*Crouse-Hinds Co., Ltd., Toronto.
HEATERS
*Waterous Engine Works Co., Ltd., Brantford, Ont.
HEATERS, feed water
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
HEATING APPLIANCES
*C. A. Dunham Co., Ltd., Toronto.
*Sheldons, Ltd., Galt, Ont.
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
HEATING SYSTEMS
*C. A. Dunham Co., Ltd., Toronto.
HEMLOCK, union and oak sole
Breithaupt Leather Co., Ltd., Kitchener, Ont.
HESSIANS
The Canadian Bag Co., Ltd., Montreal, Que.
*Scythes & Co., Ltd., Toronto.
HINGES
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
HOISTS
*M. Beatty & Sons, Ltd., Welland, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
HOISTS, electric and pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*M. Beatty & Sons, Ltd., Welland, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
HOISTING MACHINERY
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*M. Beatty & Sons, Ltd., Welland, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
HOOKS, for logging chains
*McKinnon Industries, Ltd., St. Catharines, Ont.
HOSE, fire
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber, Ltd., Toronto, Ont.
HOSE, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
*Gutta Percha & Rubber, Ltd.
HUB CAPS
*McKinnon Industries, Ltd., St. Catharines, Ont.
HUBS, for Ford cars
*McKinnon Industries, Ltd., St. Catharines, Ont.
HYDRAULIC PRESSES
*Bawden Machine Co., Ltd., Toronto, Ont.
*William R. Perrin, Ltd., Toronto
HYDRO-ELECTRIC PLANTS
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
ICE CREEPERS
Parmenter & Bulloch Co., Ltd., Gananoque, Ont.
ICE-MAKING MACHINERY
The Linde Canadian Refrigeration Co., Ltd., Montreal, Que.
INCUBATORS AND BROODERS
Lee Mfg. Co., Ltd., Pembroke, Ont.
INGOT METALS
*Brown's Copper & Brass Rolling Mills, Ltd., New Toronto, Ont.
INSERTED TOOTH SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
INSULATING COMPOUNDS
The Imperial Varnish & Color Co., Ltd., Toronto.
INSULATING PAPERS
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
INSULATORS
*Crouse-Hinds Co., Ltd., Toronto.
INTERLOCKING RUBBER TILING
*Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd., Toronto, Ont
INVERTS
Standard Clay Products, Ltd., St Johns, Que.
IRON
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
IRON, refined bar
Starr Mfg. Co., Ltd., Dartmouth, N.S.
IRON AND STEEL BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
IRON STAIRWAYS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
IRONWORK, architectural
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
*Canada Wire & Iron Goods Co., Hamilton, Ont.
IRONWORK, ornamental
*Canada Wire & Iron Goods Co., Hamilton, Ont.
IRON, LEAD AND PUTTY
A. R. Whittall, Montreal, Que.
IRON PUMPS
*Medicine Hat Pump and Brass Mfg. Co., Medicine Hat, Alta.
JACKS
*Globe Engineering Co., Ltd., Hamilton, Ont.
JAM, canned goods, etc.
E. D. Smith & Son, Ltd.
JAPANS, enamels, etc.
A. Muirhead Co., Ltd., Toronto.
The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
JIGS AND TOOLS
*Brown Engineering Corporation, Toronto, Ont.
JOINTERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
JELLY POWDER
S. H. Ewing & Sons, Montreal.
JEWELRY, enamelled souvenir
Caron Bros., Montreal, Que.
JEWELRY, gold-filled
Caron Bros., Montreal, Que.
JOIST HANGERS
*Richards - Wilcox Canadian Co., Ltd., London, Ont.
JUNCTION BOXES, cable
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
KELSEY WARM AIR GENERATOR
The Jas. Smart Mfg. Co., Limited, Brockville, Ont.
KEROSENE ENGINES
London Gas Power Co., Limited, London, Ont.
KILNS
*Sheldons, Ltd., Galt, Ont.
KINDLING
Standard Fuel Co., Toronto, Ont.
KNIFE GRINDERS
*Canada Machinery Corporation Ltd., Galt, Ont.
*W. H. Banfield & Sons, Toronto.
KNITTED GOODS
*Penman's, Ltd., Paris, Ont.
KNIVES
*Galt Knife Co., Ltd.
*The Peter Hay Knife Co., Ltd., Galt, Ont.
Simonds Canada Saw Co., Ltd., Montreal, Que.
KNIVES, pulp and paper
Henry Disston & Sons, Toronto.
*The Peter Hay Knife Co., Ltd., Galt, Ont.
KODAKS AND PHOTOGRAPHIC SUPPLIES
Canadian Kodak Co., Ltd., Toronto.
LABELS
Lawson & Jones, Ltd., London, Ont.
LABELS, lithographed
Harris Lithographing Co., Ltd., Toronto, Ont.
LABORATORY SUPPLIES
Canadian Laboratory Supplies, Ltd., Toronto.
LACE LEATHER
F. C. McCordick, St. Catharines, Ont.
*Sadler & Haworth, Montreal, Que.
*The D. K. McLaren Belting Co., Ltd., Montreal, Que.
*The J. C. McLaren Belting Co., Ltd., Montreal, Que.
LADDERS
Stratford Mfg. Co., Ltd., Stratford, Ont.
LADDERS, step
*Otterville Mfg. Co., Ltd., Otterville, Ont.
LADIES, foundry
*Northern Crane Works, Ltd., Walkerville, Ont.
LAMP GLOBES
*Crouse-Hinds Co., Ltd., Toronto.
LARD
F. W. Fearman Co., Ltd., Hamilton, Ont.
LATH
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
LATHE CHUCKS
Ker & Goodwin, Brantford, Ont.
LATHE-DOGS
Canadian Billings & Spencer, Ltd., Welland, Ont.
LATHES
*Canada Machinery Corporation, Ltd., Galt, Ont.
LAUNCHES
Peterboro Canoe Co., Ltd., Peterboro, Ont.
LAWN MOWERS
Taylor-Forbes Co., Ltd., Guelph, Ont.
LAWN SWINGS
Stratford Mfg. Co., Ltd., Stratford, Ont.
LAVATORIES, enameled
Amherst Foundry Co., Ltd., Amherst, N.S.
LAUNDRY SINKS
Amherst Foundry Co., Ltd., Amherst, N.S.
LEAD
*Consolidated Mining & Smelting Co. of Canada, Ltd., Toronto.
LEAD GRINDERS
Benjamin Moore & Co., Ltd., Toronto, Ont.
LEAD PIPE
*Hoyt Metal Co., Toronto, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
*The Canada Metal Co., Toronto.
LEAD SHEET
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
LEATHER
The Robson Leather Co., Ltd., Oshawa, Ont.
LEATHER, bookbinders'
Clarke & Clarke, Ltd., Toronto.
LEATHER DASHES & FENDERS
*McKinnon Industries, Ltd., St. Catharines, Ont.
LEATHER, fancy
Clarke & Clarke, Ltd., Toronto.
LEATHER GOODS
Lamontagne, Ltd., Montreal, Que.
LEATHER, hemlock, union and oak sole
The Breithaupt Leather Co., Ltd., Kitchener, Ont.
LEATHER, patent colt and side leather
*A. R. Clarke & Co., Ltd., Toronto.
LEATHER, sheep skin, etc.
Clarke & Clarke, Ltd., Toronto.
LEATHER, upholstering
Clarke & Clarke, Ltd., Toronto.
LEATHER, upper
A. Davis & Son., Ltd., Kingston, Ont.
King Brothers Co., Ltd., Whitby, Ont.
LIGHTS, marine, side and port
*Crouse-Hinds Co., Ltd., Toronto.
LINK BELT, Ewart, and sawmill riveted
*Canadian Link-Belt Co., Toronto.

* For Display Advertisement see Index, Page 37

LINK BELTING
*The Dodge Mfg. Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

LINOLEUM
Dominion Oil Cloth Co., Ltd., Montreal, Que.

LITHOGRAPHED BUSINESS STATIONERY
Business Systems, Ltd., Toronto.

LITHOGRAPHERS
American Bank Note Co., Ottawa, Ont.
Harris Lithographing Co., Ltd., Toronto, Ont.
The Mortimer Co., Ltd., Ottawa, Ont.

LOCKERS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*Geo. B. Meadows, Wire, Iron and Brass Works Co., Toronto. Ont.

LOCOMOTIVE BLOCKS
Standard Clay Products, Ltd., St. Johns, Que.

LOCOMOTIVES, industrial
*Montreal Locomotive Works, Ltd., Montreal, Que.

LOCOMOTIVE & MARINE BRASS WORKS
The James Morrison Brass Mfg. Co., Ltd., Toronto.

LOGGING CHAIN HOOKS
*McKinnon Industries, Ltd., St. Catharines, Ont.

LOOSE LEAF BINDERS AND FORMS
Business Systems, Ltd., Toronto.

LOOSE LEAF SYSTEMS
Copeland - Chatterson Co., Ltd., Brampton, Ont.
Lowe-Martin Co., Ottawa, Ont.

LOOSE LEAF SUPPLIES
The Esdale Press, Ltd., Edmonton, Alta.

LUBRICATORS, steam sight feed
Penberthy Injector Co., Ltd., Windsor, Ont.

LUGS, for silos and water tanks
*Ontario Wind Engine & Pump Co., Ltd., Toronto.
*Otterville Mfg. Co., Ltd., Otterville, Ont.
*McKinnon Industries, Ltd., St. Catharines, Ont.

LUMBER
*Brown Corporation, La Tuque, Que.
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
G. & J. Esplen, Montreal, Que.

LUMBER, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

LUMBER, spruce and pine, cedar railway ties and shingles
Bathurst Lumber Co., Ltd., Bathurst, N.B.

LUMBERING BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.

LUMBER, red pine and spruce
Gillies Bros., Ltd., Braeside, Ont.

LUMBER, spruce, fir, larch and cedar
Fernie Lumber Co., Ltd., Fernie, B.C.

LUMBER, White pine
Gillies Bros., Ltd., Braeside, Ont.

MACHINE KNIVES
*Galt Knife Co., Ltd.
*E. C. Atkins & Co., Inc., Hamilton, Ont.
Henry Disston & Sons, Toronto.

MACHINE TOOLS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.

MACHINE WORK, special and repairs
*Canadian Rumely Co., Ltd., Toronto, Ont.
*The John Whitfield Co., Toronto.

MACHINERY AND UTENSILS FOR BAKERS
Fletcher Mfg. Co., Ltd., Toronto.

MACHINERY AND UTENSILS FOR CANDY
Fletcher Mfg. Co., Ltd., Toronto.

MACHINERY AND UTENSILS FOR ICE CREAM
Fletcher Mfg. Co., Ltd., Toronto.

MACHINERY, conveying
*Canadian Link-Belt Co., Toronto.
*Canadian Mathews Gravity Carrier Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

MACHINERY, flour mill
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

MACHINERY, grinding
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
J. & R. Weir, Montreal, Que.
*M. Beatty & Sons, Ltd., Welland.
*Northern Crane Works, Ltd., Walkerville, Ont.

MACHINERY, ice cream
J. J. McLaughlin, Ltd., Toronto.

MACHINERY, iron working
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.

MACHINERY, pulp mill
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

MACHINERY, punching and shearing
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.

MACHINERY, railroad and car-shop
*Canada Machinery Corporation, Ltd., Galt, Ont.
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*John Bertram & Sons Co., Ltd., Dundas, Ont.

MACHINERY, roadmaking
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
Sawyer-Massey Co., Ltd., Hamilton, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

MACHINERY, sawmill
The E. Long Mfg. Co., Ltd., Orillia, Ont.
P. Payette & Co., Pentanguishene, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Yates, P. B., Machine Co., Ltd., Hamilton, Ont.

MACHINERY, sheet metal working
Brown, Boggs Co., Ltd., Hamilton, Ont.
*Canada Machinery Corporation, Ltd., Galt, Ont.

MACHINERY, special
Bawdon Machine Co., Ltd., Toronto.
*The John Whitfield Co., Toronto, Ont.

MACHINERY, transmission
Bond Engineering Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
*Goldie & McCulloch Co., Ltd., Galt, Ont.

MACHINERY, woodworking
*Canada Machinery Corporation, Ltd., Galt, Ont.
*Yates, P. B., Machine Co., Ltd., Hamilton, Ont.
Preston Woodworking Machinery Co., Ltd., Preston, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

MACHINE WORK, special and repairs
*Canadian Rumely Co., Ltd., Toronto, Ont.
*John Whitfield Co., Toronto, Ont.

MACHINE WRENCHES
*Canadian Billings & Spencer, Ltd., Welland, Ont.

MACHINES, painting
Spramotor Co., London, Ont.

MAGNESITE
Canadian Carbonate Co., Montreal, Que.

MALLEABLE, for carriages
*McKinnon Industries, Ltd., St. Catharines, Ont.

MALLEABLE IRON CASTINGS
*McKinnon Industries, Ltd., St. Catharines, Ont.
Galt Malleable Iron Co., Ltd., Galt, Ont.

MALT
*Hiram Walker & Sons, Ltd., Walkerville, Ont.

MAPLE PRODUCTS
*Maples, Ltd., Toronto, Ont.

MARTINGALE RINGS AND SLIDE LOOPS
The Arlington Co. of Canada, Ltd., Toronto, Ont.

MATCHERS
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

MATCHES
*The E. B. Eddy Co., Ltd., Hull, Que.

MECHANICAL STOKERS
*The Jones Underfeed Stoker Co., Ltd., Toronto.

MEDICINES, patented and pharmaceutical
Dr. Ed. Morin & Cie., Ltd., Quebec.

METAL, babbitt
*Canada Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
Alonzo W. Spooner, Ltd., Port Hope, Ont.

METAL CEILINGS
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

METAL LATH
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.

METAL PACKING
*Garlock Packing Co., Hamilton, Ont.

METAL, spinning and stamping
The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.

METAL SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

METAL SHINGLES
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

METAL STAMPINGS
Canadian Cartridge Co., Ltd., Hamilton, Ont.

METERS, water
Canadian Cartridge Co., Ltd., Hamilton, Ont.

MILK DEALERS' MACHINERY AND SUPPLIES
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.

MILLBOARD, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto.

MILLING CUTTERS
Pratt & Whitney Co. of Canada, Dundas, Ont.

MINING MACHINERY
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.

MITTS AND GLOVES, Indian, tan, red deerskins
Holt, Renfrew, Ltd., Quebec, Que.
A. R. Clarke & Co., Ltd., Toronto.

MIXERS, chocolate, dough and paint
Fletcher Mfg. Co., Ltd., Toronto.

MOCCASINS AND SLIPPERS, Indian tanned leathers
Holt, Renfrew, Ltd., Quebec, Que.

MORTISERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

MOTOR CARS
*Ford Co. of Canada, Ford, Ont.

MOTORS, electric
*Canadian General Electric Co., Ltd., Toronto, Ont.

MOTORS, electric (alternating current)
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Consolidated Electric Co., Ltd., Toronto, Ont.
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*T. & H. Electric Co., Hamilton, Ont.

MOTORS, electric (direct current)
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Consolidated Electric Co., Ltd., Toronto, Ont.
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*T. & H. Electric Co., Hamilton.

MOTORS, electric (repairing)
Consolidated Electric Co., Ltd., Toronto, Ont.
*T. & H. Electric Co., Hamilton.

MOTORS, pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

MOULDERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

NAILS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

NAILS, copper
Parmenter & Bullock Co., Ltd., Gananoque, Ont.

NAILS, wire
Parmenter & Bullock Co., Ltd., Gananoque, Ont.
The Graham Nail Works, Toronto.

NAPHTHA
*The Imperial Oil Co., Ltd., Toronto, Ont.

NECK YOKES
*McKinnon Industries, Ltd., St. Catharines, Ont.

NICKEL OXIDE
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
Coniagas Reduction Co., Ltd., St. Catharines, Ont.

NICKEL METAL
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.

NIPPLES, for radiators
*McKinnon Industries, Ltd., St. Catharines, Ont.

NUTS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*United Brass & Lead, Ltd., Toronto, Ont.

OAKUM, plumbers, Canadian Navy
Factory Waste & Metal Co., Montreal, Que.
*Scythes & Co., Ltd., Toronto, Ont.

OARLOCKS
*McKinnon Industries, Ltd., St. Catharines, Ont.

OAT CRUSHERS AND FLAKERS
J. Fleury's Sons, Aurora, Ont.

OFFICE DESKS
*Goderich Organ Co., Goderich, Ont.

OFFICE EQUIPMENT
Lowe-Martin Co., Ltd., Ottawa, Ont.
*Office Specialty Co., Newmarket, Ont.

OFFICE FURNITURE
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

OILS
Brandram-Henderson, Ltd., Montreal, Que.
A. Ramsay & Son Co., Montreal, Que.
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que.

OIL FILTRATION AND CIRCULATING SYSTEMS
S. F. Bowser & Co., Toronto, Ont

OIL STORAGE SYSTEMS, self-measuring
S. F. Bowser & Co., Toronto.

OIL COMPANIES
*Canadian Oil Cos., Toronto.
Commercial Oil Co., Ltd., Hamilton, Ont.
*Imperial Oil Co., Toronto.

OILS (petroleum products)
*British American Oil Co., Ltd., Toronto, Ont.
*Dominion Oil Co., Ltd., Hamilton, Ont.
*The Imperial Oil Co., Toronto.

*For Display Advertisement see Index, Page 37

OILS, road
*The Barrett Co., Ltd., Toronto and Montreal.
OIL HOLE COVERS
*Canadian Winkley Co., Ltd., Windsor, Ont.
OIL CUPS, both screw top and hinge lid
*Canadian Winkley Co., Ltd., Windsor, Ont.
OILCLOTHS, floor and table
Dominion Oil Cloth Co., Ltd., Montreal, Que.
ORGANS
*Goderich Organ Co., Goderich, Ont.
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
ORGANS, pipe
Casavant Freres, St. Hyacinthe, Que.
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
ORGANS, parlor
*Goderich Organ Co., Goderich, Ont.
ORNAMENTAL IRON WORK
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*The Geo. B. Meadows, Toronto Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
OVERALLS
Peerless Overall Co., Rock Island, Que.
Walker Pant & Shirt Co., Walkerville and Chatham, Ont.
The Standard Shirt Co., Ltd., Montreal, Que.
OVERCOATINGS
Rosamond Woollen Co., Almonte, Ont.
OVERHEAD RUNWAYS
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
OXY-ACETYLENE WELDING
*L'Air Liquide Society, Montreal, Que.
*The Prest-O-Lite Co., Inc., Toronto.
OXYGEN
*L'Air Liquide Society, Montreal, Que.
PACKING BOXES
Barchard & Co., Ltd., Toronto.
PACKING, engine
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Garlock Packing Co., Hamilton, Ont.
PACKING, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber Mfg. Co. of Toronto, Ltd.
Jenkins Bros., Ltd., Montreal, Que.
PAILS AND TUBS, wooden
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
PAINTERS' SUPPLIES
A. Muirhead Co., Ltd., Toronto.
PAINTS
R. C. Jamieson & Co., Ltd., Montreal, Que.
PAINTS AND VARNISHES
A. Muirhead Co., Ltd., Toronto.
Benjamin Moore & Co., Ltd., Toronto, Ont.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
The Staneland Co., Ltd., Victoria, B.C.
A. Ramsay & Sons Co., Montreal, Que.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
PAINTS, barn and bridge
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
PAINTS, preservative
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
*The Barrett Co., Ltd., Toronto and Montreal.

PANELBOARDS
*Crouse-Hinds Co., Ltd., Toronto.
PAPER, bags, all kinds
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
PAPER, book
Barber Paper & Coating Mills, Ltd., Georgetown, Ont.
PAPER BOXES
King Paper Box Co., Ltd., Montreal, Que.
*Rudd Paper Box Co., Ltd., Toronto, Ont.
PAPER, coated, book and label
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, coated box board
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, coated cover
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, envelope
*Provincial Paper Mills, Ltd., Georgetown, Ont.
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPER, enamelled blotting
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, label
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, ledger
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPERBOARDS
*Canada Boxboard Co., Ltd., Montreal, Que.
PAPER, super-book
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPER, wall
Stauntons, Ltd., Toronto.
PAPER, waxed
Business Systems, Ltd., Toronto.
PAPER, writing
The Toronto Paper Mfg. Co., Cornwall, Ont.
Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
PAPERS, bond
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
PAPERS, building
Bathurst Lumber Co., Ltd., Bathurst, N.B.
*The Riordon Pulp & Paper Co., Montreal, Que.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
PARCHMENT PAPER, for wet packing
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
PARK SEATS
Stratford Mfg. Co., Ltd., Stratford, Ont.
PARLOR SUNDRIES
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
PATENTS
Fetherstonhaugh & Co., Toronto.
Ridout & Maybee, Toronto, Ont.
*Harold C. Shipman & Co., Ottawa.
PATENT LITIGATION
Ridout & Maybee, Toronto, Ont.
*Harold C. Shipman & Co., Ottawa, Ont.
PATTERN MAKERS' BRASS DOWEL PINS
*Canadian Winkley Co., Ltd., Windsor, Ont.
PAY ROLL AUDITS
*International Business Machines, Ltd., Toronto, Ont.
PERFORATED METALS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
PERFORATED MUSIC ROLLS
The Otto Higel Co., Ltd., Toronto.
PERFUMES AND TOILET PREPARATIONS
Sovereign Perfumes, Ltd., Toronto.

PETROLEUM PRODUCTS
*The Imperial Oil Co., Ltd., Toronto, Ont.
PHOTO MAILERS
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.
PIANOS
Dominion Organ & Piano Co., Ltd., Bowmanville, Ont.
*Gourlay, Winter & Leeming, Toronto, Ont.
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
PIANO ACTIONS
The Otto Higel Co., Ltd., Toronto.
PIANO KEYS
The Otto Higel Co., Ltd., Toronto.
PIANOS, player
*Gourlay, Winter & Leeming, Toronto, Ont.
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
PIANO, player actions
The Otto Higel Co., Ltd., Toronto.
PIANO STOOLS AND BENCHES
*Goderich Organ Co., Goderich, Ont.
PIG IRON
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
M. A. Hanna & Co., Toronto.
PINS, society, emblems and badges
Caron Bros., Montreal, Que.
PIPE, cast iron, for water and gas
National Iron Works, Ltd., Toronto, Ont.
PIPE COUPLINGS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
PIPE COVERINGS
*Eureka Mineral Wood & Asbestos Co., Toronto, Ont.
PIPE ORGANS
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
PIPES, culvert
Standard Clay Products, Ltd., St. John's, Que.
*The Pedlar People, Ltd., Oshawa, Ont.
PIPE AND NIPPLES, black and galvanized
*Canadian Tube & Iron Co., Ltd., Montreal, Que.
PIPE, sewer
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.
Standard Clay Products, Ltd., St. John's, Que.
PIPE, soil and fittings
Anthes Foundry, Ltd., Toronto and Winnipeg.
Warden King Ltd., Montreal, Que.
PIPE AND TUBES, wrought
*Page-Hersey Iron Tube & Lead Co., Ltd., Toronto, Ont.
PISTON RODS
*The Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*Union Drawn Steel Co., Ltd., Hamilton, Ont.
PLANERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
PLANING MILLS
G. & J. Esplen, Montreal, Que.
PLASTERING TROWELS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
PLOWS
J. Fleury's Sons, Aurora, Ont.
PLUGS
*Crouse-Hinds Co., Ltd., Toronto.
PLUMBAGO CRUCIBLES AND STOPPER HEADS
Dominion Crucible Co., Ltd., Montreal, Que.
PLUMBERS' SUPPLIES
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
PLUMBING APPLIANCES
Standard Sanitary Mfg. Co., Ltd., Toronto, Ont.
PLUMBING SUPPLIES
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
PNEUMATIC DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
PNEUMATIC MACHINERY
*Canadian Ingersoll-Rand Co., Sherbrooke, P.Q.

POLE LINE MATERIAL (wooden insulator top pins, side blocks, pole steps, cross arms)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.
POLES, flag
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
POLES, telegraph and telephone, cedar
Fernie Lumber Co., Ltd., Fernie, B.C.
PORK PACKERS AND CHEESE EXPORTERS
The Ingersoll Packing Co., Ltd., Ingersoll, Ont.
POSTS, split cedar fence
Fernie Lumber Co., Ltd., Fernie, B.C.
POULTRY SUPPLIES AND MEDICINES
Lee Mfg. Co., Ltd., Pembroke, Ont.
POWDER, blasting
Canadian Explosives, Ltd., Montreal, Que.
POWER PRESSES
Hydraulic Machinery Co., Ltd., Montreal, Que.
*William R. Perrin, Ltd., Toronto.
PRESERVATIVE PAINT
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
PRESSES, baling and filter
*William R. Perrin, Ltd., Toronto.
PRESSES, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.
PRESSES, sheet metal stamping
Brown, Boggs Co., Ltd., Hamilton, Ont.
*Canada Machinery Corporation, Ltd., Galt, Ont.
PRESSES, veneer
*Canada Machinery Corporation, Ltd., Galt, Ont.
PRESSED STEEL AND BRASS GREASE CUPS
*William R. Perrin, Ltd., Toronto.
PRINTERS
Rous & Mann, Ltd., Toronto, Ont.
The Mortimer Co., Ltd., Ottawa, Ont.
PRINTING AND LITHOGRAPHING
Lawson & Jones, Ltd., London, Ont.
PULLEYS
Bond Engineering Co., Toronto.
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
PULLEYS, wood split
*Bernard Industrial Co., Fortierville, P.Q.
PULP, bleached sulphite
The Edward Partington Pulp & Paper Co., St. John, N.B.
Riordan Sales Co., Ltd., Montreal, Que.
PULP, unbleached sulphite
Riordan Sales Co., Ltd., Montreal,
PULP, sulphate and sulphite
Bathurst Lumber Co., Ltd., Bathurst, N.B.
PULP
*Brown Corporation, La Tuque, Que.
PULP AND PAPER MILL MACHINERY
*The Hydraulic Machinery Co., Limited, Montreal.
PUMPS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
*Bawden Machine Co., Ltd., Toronto, Ont.
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*E. Leonard & Sons, Ltd., London, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
Spramotor Co., London, Ont.
*The Electric Steel & Metals Co., Ltd., Welland, Ont.
PUMPS, boiler feed
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Bawden Machine Co., Ltd., Toronto, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

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PUMPS, centrifugal
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*M. Beatty & Sons, Ltd., Welland, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Dominion Forge & Stamping Co., Ltd., Walkerville, Ont.
*Wentworth Mfg. Co., Hamilton.

PUMPS, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.

PUMPS, turbine and reciprocating
*Bawden Machine Co., Ltd., Toronto, Ont.
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

PUNCHES
*John Whitfield Co.,Toronto, Ont.
*Pratt & Whitney Co., Dundas,Ont.

PYROMETERS
*Canadian Hoskins Co., Walkerville, Ont.

RADIATORS
Taylor-Forbes Co., Ltd., Guelph, Ont.
Warden King, Ltd., Montreal, Que.

RAILINGS, brass and iron
*Dennis Wire & Iron Works Co., London, Ont.

RAILS, light
Hammant Steel Car & Engineering Works, Hamilton, Ont.

RAILWAY SIGNAL APPLIANCES
General Railway Signal Co. of Canada, Ltd., Montreal, Que.

RAILWAY SUPPLIES
*Canadian Steel Foundries, Ltd., Montreal, Que.
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
B. J. Coghlin Co., Ltd., Montreal, Que.

RAILWAY TARIFF BINDERS
The Esdale Press, Ltd., Edmonton, Alta.

READY-TO-WEAR GARMENTS, ladies'
H. C. Boulter Co., Ltd., Toronto.

REAMERS
*Pratt & Whitney Co., Dundas, Ont.
*Butterfield & Co., Rock Island, P.Q.

RECEPTACLES
*Crouse-Hinds Co., Ltd., Toronto.

REED AND RATTAN GOODS
Canada Furniture Mfgs., Ltd., Woodstock, Ont.

REFRIGERATORS
Sanderson-Harold Co., Ltd., Paris, Ont.
Lee Mfg. Co., Ltd., Pembroke, Ont.

REFRIGERATING MACHINERY
The Linde Canadian Refrigeration Co., Ltd., Montreal, Que.

REFRIGERATORS, store, homes and institutions
Ham & Nott Co., Ltd., Brantford, Ont.
John Hillock & Co., Ltd., Toronto.

REINFORCEMENT BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*Trussed Concrete Steel Co., Ltd., Walkerville, Ont.

REINFORCEMENT FOR CONCRETE
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.

REINFORCEMENT FOR CONCRETE ROOFING, metal
*The Pedlar People, Ltd., Oshawa, Ont.
*Trussed Concrete Steel Co., Ltd., Walkerville, Ont.

REVOLVING DOORS
*A. B. Ormsby Co., Ltd., Toronto.

RINGS, gold
Caron Bros., Montreal, Que.

RIVETERS, pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

RIVETS
*Canadian Tube & Iron Co., Ltd., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*Stowell Screw Co., Ltd., Montreal.

RIVETS, bifurcated and tubular
Parmenter & Bullock Co., Ltd., Gananoque, Ont.

RIVETS AND BURRS, iron, copper and brass
Parmenter & Bullock Co., Ltd., Gananoque, Ont.

ROCK DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

ROLLING STEEL DOORS
*A. B. Ormsby Co., Ltd., Toronto.

ROLL PRINTING
*Autographic Register Co., Ltd., Montreal, Que.
Business Systems, Ltd., Toronto.

ROOFING, metal
*A. B. Ormsby Co., Ltd., Toronto.

ROOFINGS, plastic, liquid, rubber
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.

ROOFING, ready to lay
Pacific Roofing Co., Vancouver, B.C.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
*The Barrett Co., Ltd., Toronto and Montreal.

ROOF TRUSSES
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
*Dominion Bridge Co., Ltd., Montreal, Que.

ROPE
*Doon Twines, Ltd., Doon, Ont.
*Shurly & Derrett, Ltd., Toronto.

ROPE, cotton
Hamilton Cotton Co., Hamilton, Ont.

RUBBER FOOTWEAR
Ames Holden, McCready, Ltd., Montreal, Que.
*Gutta Percha & Rubber Ltd., Toronto, Ont.
The Miner Rubber Co., Ltd., Grandy, Que.

RUBBER GOODS
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber Limited, Toronto.

RUBBER MACHINERY
*The Hydraulic Machinery Co., Limited, Montreal.

RUBBER MOULDS
Bawden Machine Co., Ltd., Toronto, Ont.

RUBBER PACKING
*Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Garlock Packing Co., Hamilton, Ont.

RULES
The Lufkin Rule Co. of Canada, Ltd., Windsor, Ont.

SADDLERY HARDWARE
*Dominion Forge & Stamping Co., Walkerville, Ont.
*McMinnon Industries, Ltd., St. Catharines, Ont.

SAFES
*Goldie & McCulloch Co., Ltd., Galt, Ont.
J. & J. Taylor, Ltd., Toronto.

SAMPLE CASES
The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.
J. Eveleigh & Co., Ltd., Montreal, Que.

SAND RAMMERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

SANDPAPER
*Delaney & Pettit, Ltd., Toronto.

SASH CORD, cotton
Hamilton Cotton Co., Hamilton, Ont.

SALT
Canadian Salt Co., Ltd., Windsor, Ont.
*Dominion Salt Co., Ltd., Sarnia, Ont.

SANITARY PAPER TOWELS
*E. B. Eddy Co., Ltd., Hull, Que.

SAVE-ALLS
*The Hydraulic Machinery Co., Limited, Montreal.

SAW SHARPENING MACHINERY
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

SAWS
*E. C. Atkins & Co., Ltd., Hamilton, Ont.
Henry Disston & Sons, Ltd., Toronto, Ont.
Shurly & Deitrich, Galt, Ont.

SAWS, cross-cut and band
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
Shurly & Deitrich, Galt, Ont.

SAWS, circular mill
Shurly & Deitrich, Galt, Ont.

SAWS, hack
*Victor Saw Works, Ltd., Hamilton, Ont.

SAWS, of all kinds
Simonds Canada Saw Co., Ltd., Montreal, Que.

SAWS, rip
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
Shurly & Deitrich, Galt, Ont.

SAWMILLS
G. & J. Esplen, Montreal, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

SAW MILL MACHINERY
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.

SAWS, specialties
*Victor Saw Works, Ltd., Hamilton, Ont.

SCALES
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
The Gurney Scale Co., Hamilton, Ont.

SCALES, counter
The Gurney Scale Co., Hamilton, Ont.

SCALES, railway track, etc.
The Gurney Scale Co., Hamilton, Ont.

SCREENS
*Canada Wire & Iron Goods Co., Hamilton, Ont.

SCREEN DOORS AND WINDOWS
Sanderson-Harold Co., Ltd., Paris, Ont.
Ham & Nott Co., Ltd., Brantford, Ont.

SCREWS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*Stowell Screw Co., Ltd., Montreal, Que.

SCREW PLATES
*Butterfield & Co., Rock Island, P.Q.

SECURITIES, engraved
American Bank Note Co., Ottawa, Ont.

SERGES
Rosamond Woollen Co., Almonte, Ont.

SEWAGE SCREENS
*The Hydraulic Machinery Co., Limited, Montreal.

SHAFTING
Canada Forge Co., Ltd., Welland, Ont.
Bond Engineering Co., Toronto.
*Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*Union Drawn Steel Co., Ltd., Hamilton, Ont.
*Dodge Mfg. Co., Ltd., Toronto.

SHANTY BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.

SHAPERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

SHEAR BLADES, iron
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.

SHEATHING
*The Barrett Co., Ltd., Toronto and Montreal.

SHEATHING, asbestos corrugated
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

SHEET METAL STAMPINGS
Acme Stamping & Tool Works, Ltd., Hamilton, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.
*W. H. Banfield & Sons, Ltd., Toronto, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

SHEETS, Etc.
*Tallhan Brass & Metal Co., Hamilton, Ont.

SHEETS, galvanized
*Dominion Sheet Metal Co., Ltd., Hamilton, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.

SHINGLES
Bathurst Lumber Co., Ltd., Bathurst, N.B.

SHINGLE SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

SHIP BUILDERS
J. & R. Weir, Montreal, Que.

SHIRTS
John W. Peck & Co., Ltd., Montreal, Que.

SHIRTS, workmen's
*A. R. Clarke & Co., Ltd., Toronto.

SHOE PEGWOOD
O. Chalifour, Quebec, Que.

SHOE LININGS
Galt Knitting Co., Ltd., Galt, Ont.

SHOES, running and athletic
Ames - Holden - McCready, Ltd., Montreal, Que.

SHOOKS
Barchard & Co., Ltd., Montreal.

SIGNAL CELLS
Canadian National Carbon Co., Ltd., Toronto.

SILENT CHAIN DRIVES
*Canadian Link-Belt Co., Toronto.

SILVER BULLION
Coniagas Reduction Co., Ltd., St. Catharines, Ont.
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.

SILVERSMITH
Canadian Wm. A. Rogers, Ltd., Toronto, Ont.
Standard Silver Co., Toronto, Ont.

SILVERWARE, sterling
Roden Bros., Ltd., Toronto, Ont.

SINGLETREES
*McKinnon Industries, Ltd., St. Catharines, Ont.

SINKS, enamelled
Amherst Foundry Co., Ltd., Amherst, N.S.

SKATES, figure
Canada Cycle & Motor Co., Ltd., Toronto, Ont.

SKATES, genuine Acme
Canada Cycle & Motor Co., Ltd., Toronto, Ont.

SKATES, hockey
Canada Cycle & Motor Co., Ltd., Toronto, Ont.

SKATES, ice
Canada Cycle & Motor Co., Ltd., Toronto, Ont.

SKIFFS
Peterboro Canoe Co., Ltd., Peterboro, Ont.

SKYLIGHTS
*A. B. Ormsby Co., Ltd., Toronto.
*The Pedlar People, Ltd., Oshawa, Ont.

SLEIGHS
Tudhope-Anderson Co., Ltd., Orillia, Ont.

SLIPPERS
Ames - Holden - McCready, Ltd., Montreal, Que.

SLOTTERS
*Canada Machinery Corporation, Ltd., Galt, Ont.

SMALL METAL STAMPINGS, in quantities
*Canadian Winkley Co., Ltd., Windsor, Ont.

SMOKE CONSUMERS
*The Jones Underfeed Stoker Co., Ltd., Toronto, Ont.

SMOKE-STACKS
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.

SNAPS, for harness
*McKinnon Industries, Ltd., St. Catharines, Ont.

SOAPS
J. Barsalou & Co., Ltd., Montreal.

SOAP (soft, oil)
The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que.

SOCKETS
*Crouse-Hinds Co., Ltd., Toronto.

SODA WATER FOUNTAINS
J. J. McLaughlin, Ltd., Toronto.

SODA WATER FOUNTAINS AND ACCESSORIES
Fletcher Mfg. Co., Ltd., Toronto.

SOIL PIPE
Anthes Foundry, Ltd., Toronto.

*For Display Advertisement see Index Page 37

SOLDER
Alonzo W. Spooner, Ltd., Port Hope, Ont.
*Canada Metal Co., Toronto, Ont.
*Hoyt Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

SOLDER, silver
Geo. H. Lees & Co., Hamilton, Ont.

SOLDER, wire and bar
*American Can Co., Montreal, and Hamilton.

SOLDERING IRONS AND COPPERS
Brown, Boggs Co., Ltd., Hamilton.

SNOWSHOES
Holt, Renfrew, Ltd., Quebec, Que.

SPECIAL MACHINERY
*Globe Engineering Co., Ltd., Hamilton, Ont.

SPELTER
*Consolidated Mining & Smelting Co. of Canada, Ltd., Toronto.

SPIKES, railway and marine
Starr Mfg. Co., Ltd., Dartmouth, N.S.

SPINNING AND STAMPING
Tallman Brass & Metal, Ltd., Hamilton, Ont.

SPIRAL CONVEYORS
*Canadian Mathews Gravity Carrier Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

SPLIT PEAS
H. Murton, Ltd., Guelph, Ont.

SPIRITS
*Hiram Walker & Sons, Ltd., Walkerville, Ont.

SPOOLS
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.

SPORTING MEDALS AND TROPHIES
Roden Bros., Ltd., Toronto, Ont.

SPRAYERS
Spramotor Co., London, Ont.

SPRING COTTERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.

SPRINGS
*Canadian Steel Foundries, Ltd., Montreal, Que.
B. J. Coghlin Co., Ltd., Montreal.
Guelph Spring & Axle Co., Ltd., Guelph, Ont.

SPRINGS, carriage and automobile
Guelph Spring & Axle Co., Ltd.,

SPRING SHACKLE BOLTS
*Canadian Winkley Co., Ltd., Windsor, Ont.
John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.

SPRINKLER SYSTEMS
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
*Purdy, Mansell, Ltd., Toronto.
*Vogel Co. of Canada, Ltd., Montreal. Que.

SPROCKET WHEELS
*Canadian Link Belt Co., Ltd., Toronto, Ont.

STAINS
R. C. Jamieson & Co., Ltd., Montreal, Que.

STAINS, creosote shingle
A. Muirhead Co., Ltd., Toronto.

STAMPINGS

STAMPINGS, heavy steel
Canadian Cartridge Co., Ltd., Hamilton, Ont.

STAMPS, steel, brass and rubber
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

STAMP MILLS
*Jenckes Machine Co., Sherbrooke, P.Q.

STATIONERY, office
Harris Lithographing Co., Toronto.

STEAM PIPE AND BOILER COVERINGS, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto.

STEAM SHOVELS
*M. Beatty & Sons, Ltd., Welland, Ont.

STEAM SPECIALTIES
*C. A. Dunham Co., Ltd., Toronto.
*Darling Bros., Ltd., Montreal, Que.
*Sheldons, Ltd., Galt, Ont.

STEAM TRAPS
*C. A. Dunham Co., Ltd., Toronto.
*Canadian Morehead Mfg. Co., Ltd., Woodstock, Ont.

STEEL
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
*Burlington Steel Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.

STEEL BILLETS AND BLOOMS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

STEEL BUILDINGS
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
*Dominion Bridge Co., Ltd., Montreal, Que.
*Maritime Bridge Co., Ltd., New Glasgow, N.S.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, P.Q.
*The Pedlar People, Ltd., Oshawa, Ont.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

STEEL CABINETS
J. & J. Taylor, Ltd., Toronto, Ont.

STEEL CASTINGS
Beauchemin & Fils, Ltd., Sorel, Que.
*Canadian Steel Foundries, Ltd., Montreal, Que.
*Dominion Steel Foundry Co., Ltd., Hamilton, Ont.
*Electric Steel & Metals Co., Ltd., Welland, Ont.

STEEL DOORS, rolling
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

STEEL FILING EQUIPMENT
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

STEEL PLATE WORK
*MacKinnon Steel Co., Limited, Sherbrooke, P.Q.
*Toronto Iron Works, Ltd., Toronto.

STEEL RODS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

STEEL SASH
*Dennis Wire & Iron Works Co., London, Ont.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

STEEL SHELVING
*Dennis Wire & Iron Works Co., London, Ont.

STEEL WIRE RODS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

STEEL WAGON HARDWARE
*McKinnon Industries, Ltd., St. Catharines, Ont.

STELLITE
*Deloro Smelting & Refining Co., Ltd., Deloro and Toronto.

STENCILS, brass
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

STEPS, for buggies and carriages
*McKinnon Industries, Ltd., St. Catharines, Ont.

STEREO TISSUE AND BLOTTINGS
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.

STEREOTYPING
Central Press Agency, Toronto.

STOKERS
*The Jones Underfeed Stoker Co., Ltd., Toronto, Ont.

STOOLS AND BENCHES, piano and organ
*Otterville Mfg. Co., Ltd., Otterville, Ont.

STOOLS, steel factory
*Steel Trough & Machine Co., Ltd., Tweed, Ont.

STONE
The Hagersville Contracting Co., Hagersville, Ont.

STONEWARE
*Jas. W. Foley & Co., St. John, N.B.

STORAGE BATTERIES
*Canadian General Electric Co., Ltd., Toronto, Ont.

STORE FITTINGS
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.

STOVES
Smith Foundry Co., Ltd., Fredericton, N.B.
Tudhope - Anderson Co., Ltd., Orillia, Ont.

STOVE LININGS
Standard Clay Products, Ltd., St. John's Que.

STOVES AND RANGES
Lee Mfg. Co., Ltd., Pembroke, Ont.
The Jas. Smart Mfg. Co., Ltd., Brockville, Ont.
McClary Mfg. Co., London, Ont.

STRAWS, paper drinking
Fletcher Mfg. Co., Ltd., Toronto.

STRAWBOARD
*Canada Boxboard Co., Ltd., Montreal, Que.

STREET LIGHTING FIXTURES
*Crouse-Hinds Co., Ltd., Toronto.

STRETCHERS, lace curtain
*Otterville Mfg. Co., Ltd., Otterville, Ont.

STRUCTURAL STEEL
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
*Dominion Bridge Co., Montreal.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*Manitoba Bridge & Iron Works, Ltd., Winnipeg, Man.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*The Canadian Bridge Co., Ltd., Walkerville, Ont.

STUMP EXTRACTORS
*The John Whitfield Co., Toronto.

SUIT CASES
J. Eveleigh & Co., Ltd., Montreal.
The M. Langmuir Mfg. Co. of Toronto, Ltd., Toronto, Ont.

SULPHUR BURNERS
*The Hydraulic Machinery Co., Limited. Montreal.

SUPPLY DEALERS
*The Foundation Co., Ltd., Montreal, Que.

SURFACERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

SWITCHBOARDS
*Canadian General Electric Co., Ltd., Toronto, Ont.
*Crouse-Hinds Co., Ltd., Toronto.

SWITCHES
*Crouse-Hinds Co., Ltd., Toronto.

SWITCHES, railway
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.

SWITCHES AND FROGS
*Canadian Steel Foundries, Ltd., Montreal, Que.

SWITCH STANDS
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.

TABLE COVERS, chenille
Hamilton Cotton Co., Hamilton, Ont.

TANKS
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*Toronto Iron Works, Ltd., Toronto.
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
Goold - Shapley - Muir Co., Ltd., Brantford, Ont.
*E. Leonard & Sons, Ltd., London, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Maritime Bridge Co., Ltd., New Glasgow, N.S.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

TANKS, steel storage
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.

TANNERS' SUPPLIES
McClary Mfg. Co., London, Ont.

TAPS
*Butterfield & Co., Rock Island, P.Q.
*Pratt & Whitney Co., Dundas, Ont.

TAPES, measuring
The Lufkin Rule Co. of Canada, Ltd., Windsor, Ont.

TELEPHONE ACCESSORIES
*Canadian Independent Telephone Co., Toronto, Ont.
*Northern Electric Co., Ltd., Montreal, Que.

TENTS
Turner, J. J., & Sons, Peterboro, Ont.
*Scythes & Co., Ltd., Toronto, Ont.

TERMINALS, electric cable
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

TERRA ALBA
*Albert Mfg. Co., Hillsborough, N.B.

TERRA COTTA, architectural
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.

TEXTILE SUPPLIES (shuttles, bobbins, spools and picker sticks)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.

THUMB SCREWS
*Canadian Billings & Spencer, Ltd., Welland Ont.

TIE TAMPERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

TIE PLATES, for railways
*McKinnon Industries, Ltd., St. Catharines, Ont.

TILING, rubber
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber Ltd., Toronto, Ont.

TIME RECORDERS
*International Business Machines Co., Ltd., Toronto, Ont.

TINWARE, lithographed
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

TIRES, bicycle, auto, carriage, truck, motorcycle.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber Ltd., Toronto, Ont.

TOILET PAPER, towels, tissues
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.

TOOLS
*The John Whitfield Co., Toronto,

TOOLS, pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

TOOLS, track
B. J. Coghlin Co., Ltd., Hamilton.

TOOLS, sheet metal workers'
Brown, Boggs Co., Ltd., Hamilton.

TRACK, steel, portable
Hammant Steel Car & Engineering Works, Hamilton, Ont.

TRADE MARKS AND DESIGNS
Ridout & Maybee, Toronto, Ont.

TRANSFORMERS
*Canadian General Electric Co., Ltd., Toronto, Ont.
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.

TRANSLATIONS INTO FRENCH
Raoul Renault, Quebec City.

TRANSMISSION MACHINERY
Bond Engineering Co., Toronto.
*Canadian Link Belt Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

TRAPS
*C. A. Dunham Co., Ltd., Toronto.
*Canadian Morehead Mfg. Co., Woodstock, Ont.

TROLLEYS
*Richard-Wilcox Canadian Co., Ltd., London, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.

TRUCKS
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
The Gurney Scale Co., Hamilton.
*Northern Crane Works, Ltd., Walkerville, Ont.

TRUCKS, brick, tile and lumber
*Waterous Engine Works Co., Ltd., Brantford, Ont.

TRUCKS, motor
*National Steel Car Co., Ltd., Hamilton, Ont.

TRUCKS, warehouse and factory
The W. S. Mahaffy Co., Toronto.

TRUCKS, steel, forge and foundry
Hammant Steel Car & Engineering Works, Hamilton, Ont.

TRUCKS FOR OFFICE AND VAULT USE
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

TRUNKS
Lamontagne, Ltd., Montreal, Que.
J. Eveleigh & Co., Ltd., Montreal.
The M. Langmuir Mfg. Co. of Toronto, Ltd., Toronto.

*For Display Advertisement see Index, Page 37

TUBING, brass and copper
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
Canadian Seamless Wire Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Co., Ltd., Montreal, Que.

TUBING, gold and silver
Canadian Seamless Wire Co., Toronto, Ont.

TUBES, ice cream
Fletcher Mfg. Co., Ltd., Toronto.

TUMBLERS, foundry
*Northern Crane Works, Ltd., Walkerville, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

TURBINES, steam
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines.

TURBINE PUMPS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

TURPENTINE
*Brown Corporation, La Tuque, Que.

TWEEDS
Rosamond Woollen Co., Almonte, Ont.

TWINES
*Doon Twines, Ltd., Doon, Ont.
*Shurly & Derrett, Ltd., Toronto.

TWINES, binder
Brantford Cordage Co., Ltd., Brantford, Ont.

TWINES, cotton
Hamilton Cotton Co., Hamilton, Ont.

TWIST DRILLS
*John Morrow Screw & Nut Co., Ltd., Ingersoll.
*Pratt & Whitney Co. of Canada, Dundas, Ont.
*The Wilt Twist Drill Co., Ltd., Walkerville, Ont.

UNDERWEAR
Galt Knitting Co., Ltd., Galt, Ont.

UNDERWEAR, imperial
Kingston Hosiery Co., Ltd., Kingston, Ont.

UNIONS
*Dart Union Co., Ltd., Toronto.
*Otterville Mfg. Co., Ltd., Otterville, Ont.

UPHOLSTERED FURNITURE, leather and tapestries
Imperial Rattan Co., Ltd.

VALVES
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Jenkins Bros., Ltd., Montreal, Que.
*Kerr Engine Co., Ltd., Walkerville, Ont.
T. McAvity & Sons, Ltd., St. John, N.B.
*Penberthy Injector Co., Ltd., Windsor, Ont.

VALVES, for steam and water
*Jenkins Bros., Ltd., Montreal.
*Mueller Mfg. Co., Ltd., Sarnia, Ont.
*Penberthy Injector Co., Ltd., Windsor, Ont.
James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.

VALVES, pressure reducing
*Mueller Mfg. Co., Ltd., Sarnia, Ont.

VALVES, regrinding globe, angle, cross checks, swing checks
*Mueller Mfg. Co., Ltd., Sarnia, Penberthy Injector Co., Ltd., Windsor, Ont.

VALVES, regulating
*Mueller Mfg. Co., Ltd., Sarnia, Ont.

VALVES, rubber
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.

VARNISHES
*Ault & Wiborg Co. of Canada, Ltd., Toronto, Ont.
Berry Bros., Walkerville, Ont.
R. C. Jamieson & Co., Ltd., Montreal, Que.

VAULT FITTINGS, steel
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

VAULTS AND VAULT DOORS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
J. & J. Taylor, Ltd., Toronto, Ont.

VENTILATING APPLIANCES
*Sheldons, Ltd., Galt, Ont.

VENTILATING SYSTEMS
Gurney Foundry Co., Ltd., Toronto, Ont.

VENTILATORS
*A. B. Ormsby, Ltd., Toronto, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.

VOLTMETERS AND AMMETERS
*Crouse-Hinds Co., Ltd., Toronto.

WAGONS
Tudhope Anderson Co., Ltd., Orillia, Ont.

WAGON HARDWARE
*McKinnon Industries, Ltd., St. Catharines, Ont.

WALL COPING
Standard Clay Products, Ltd., St. John's, Que.

WASHERS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*United Brass & Lead, Ltd., Toronto, Ont.

WASHERS, plate or wrought
London Rolling Mill Co., Ltd., London, Ont.

WASTES, wool and cotton
Factory Waste & Metal Co., Montreal, Que.
*Scythes & Co., Ltd., Toronto, Ont.

WATERPROOF, cement coating
Benjamin Moore & Co., Ltd., Toronto, Ont.
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
*The Barrett Co., Ltd., Toronto and Montreal.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.

WATERPROOF, caselining
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.

WATER WHEELS
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.

WEBBING, elastic
Hamilton Cotton Co., Hamilton, Ont.

WEBBING, non-elastic
Hamilton Cotton Co., Hamilton, Ont.

WELDING APPARATUS AND MATERIALS
*The Presto-O-Lite Co., Toronto.

WELL-DIGGING TOOLS AND MACHINERY
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.

WHEEL FLANGES
*McKinnon Industries, Ltd., St. Catharines, Ont.

WHEELS
*Canadian Car & Foundry Co., Ltd., Montreal, Que.

WHEELS, corundum
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

WHEELS, emery
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

WELL DRILLING TOOLS AND MACHINERY
Oil Well Supply Co., Ltd., Petrolia, Ont.

WHIPS AND LASHES
Lay Whip Co., Rock Island, Que.

WHIPSOCKETS
*McKinnon Industries, Ltd., St. Catharines, Ont.

WHITE ARSENIC
Coniagas Reduction Co., Ltd., St. Catharines, Ont.

WHITE LEAD
Brandram-Henderson, Ltd., Montreal, Que.
A. Ramsay & Son Co., Montreal.

WINDMILLS
*Goold - Shapley - Muir Co., Ltd., Brantford, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*Medicine Hat Pump & Brass Mfg. Co., Medicine Hat, Alta.

WINDOW SHADES
Daly & Morin, Montreal, Que.

WIRE
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*Laidlaw Bale Tie Co., Ltd., Hamilton, Ont.
*Eugene F. Phillips, Electrical Works, Ltd., Montreal, Que.
The Graham Nail Works, Toronto.

WIRE BALE TIES
*Laidlaw Bale Tie Co., Ltd., Hamilton, Ont.

WIRE CLOTH
*Canada Wire & Iron Goods Co., Hamilton, Ont.
C. H. Johnston & Sons, Ltd., Montreal, Que.

WIRE, feeder and trolley
*Eugene F. Phillips, Electrical Works, Ltd., Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

WIRE GUARDS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
C. H. Johnston & Sons, Ltd., Montreal, Que.

WIRE, insulated electric
*Northern Electric Co., Ltd., Montreal, Que.
*Eugene F. Phillips Electrical Works, Ltd., Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

WIRE, weatherproof
*Northern Electric Co., Ltd., Montreal, Que.
*Eugene F. Phillips Electrical Works, Ltd., Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

WIRE ROPE
*Dominion Wire Rope Co., Ltd., Montreal, Que.
*The B. Greening Wire Co., Ltd., Hamilton, Ont.

WIRE WORK
C. H. Johnson & Sons, Ltd., Montreal, Que.
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*The Geo. B. Meadows, Toronto Iron & Brass Goods Works Co., Ltd., Toronto, Ont.

WIRING DEVICES
*Crouse-Hinds Co., Ltd., Toronto.

WOOD
Standard Fuel Co., Toronto, Ont.

WOOD BORERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

WOOD PRINTERS
Barchard & Co., Ltd., Toronto.

WOOD PULP, mechanical
La Cie de Pulpe de Chicoutimi, Chicoutimi, Que.

WOODBOARD
*Canada Boxboard Co., Ltd., Montreal, Que.

WOOD SHOP, general work
*Canadian Rumely Co., Ltd., Toronto, Ont.

WOOD SPLIT PULLEYS
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

WOOD STAVE PIPE
T. A. Morrison & Co., Montreal.

WOOL
*H. V. Andrews, Toronto, Ont.

WOOD TURNING
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.

WORSTED COATINGS AND SUITINGS
Rosamond Woollen Co., Almonte, Ont.

WRAPPERS, book, bottle, etc.
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.

WRENCHES
*McKinnon Industries, Ltd., St. Catharines, Ont.

WROUGHT IRON PIPE
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

WROUGHT PIPE
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

YARNS, cotton
Hamilton Cotton Co., Hamilton, Ont.

ZINC, electrical
*The Canada Metal Co., Toronto.

* For Display Advertisement see Index, Page 37

Will Not Rebuild

Canada Furniture Manufacturers Do Not Intend to Restore Burned Factory at Wiarton

It is not the intention of the Canada Furniture Manufacturers, Limited, to rebuild the chair factory at Wiarton, Ont., which was destroyed by fire on the night of October 1, with an approximate loss of $75,000. Taking into consideration the labor situation at the present time and the high cost of building, the management do not regard it as a wise thing to do to restore the industry. Instead, many of the lines which were formerly made at Wiarton will be manufactured in the Woodstock plant. Facilities at the latter plant are such as to make it possible for the company to turn out a much larger output, if only the labor can be procured, and no effort will be spared to procure this labor.

Belgian Sample Fair

Belgians Anxious to See Closer Trade Relations Between their Country and Canada

A letter has been received by the Commercial Intelligence Branch, Department of Trade and Commerce, Ottawa, from the Agent-General of the Province of Quebec in Brussels, Belgium, announcing that the Brussels Sample Fair will be held from April 4 to 21, 1920. He adds: "Belgians expect the Canadian manufacturers and exporters will attend this Fair with their samples. They are anxious to see closer trade relations between the two countries. Entries can be made up to January 15. Here are the prices of the stands; covered stands 4 x 3 yards, frs. 600; open stands, frs. 25 per square yard. Each firm will have to pay a fee of frs. 5 for its registration in the official catalogue."

Vol. XX., No. 8 TORONTO, DECEMBER, 1919 $2.00 per Year

INDUSTRIAL CANADA

Only Good Advertising Pays

It is quite easy to waste money in ill-considered and ill-directed advertising.

Careful study of product and market, well thought out and well executed "copy," and choice of proper mediums are a pre-requisite of advertising that is to be effective.

We are equipped by long and varied experience and by the maintenance of a specially qualified personnel to give this kind of service.

Cannot we help YOU?

J. J. GIBBONS, LIMITED

General Advertising Agents

MONTREAL TORONTO WINNIPEG

Cables—Gibjay, Toronto Codes—ABC, 5th Edition

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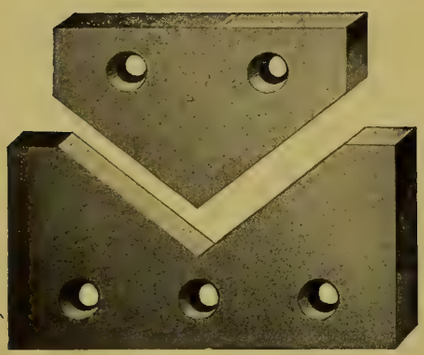
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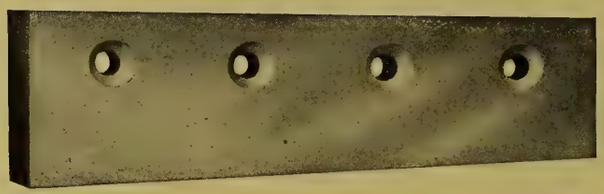
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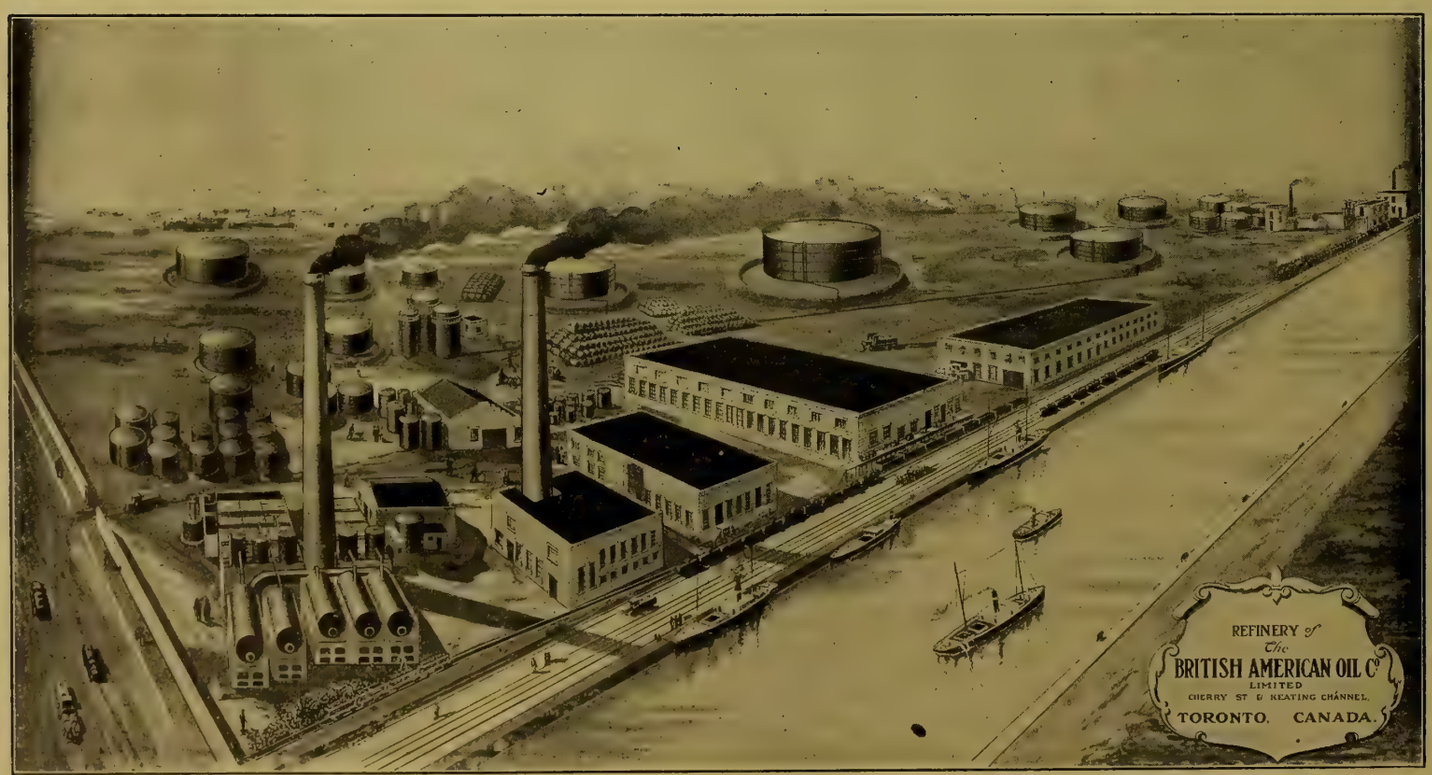


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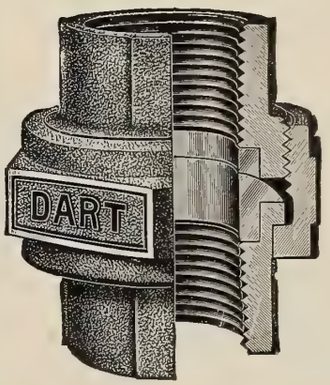
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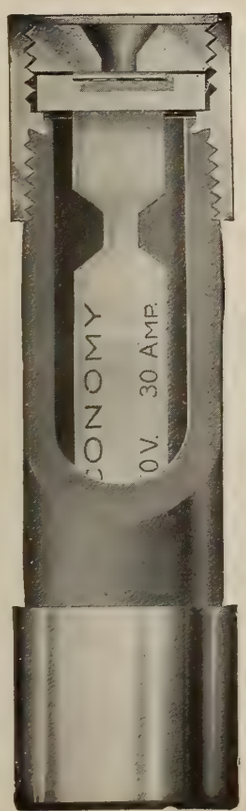
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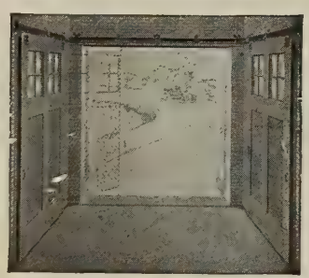


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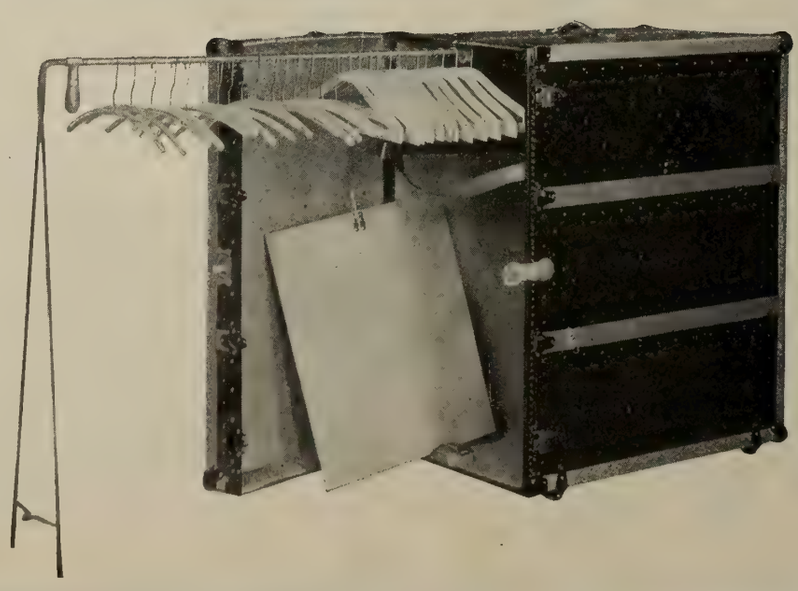
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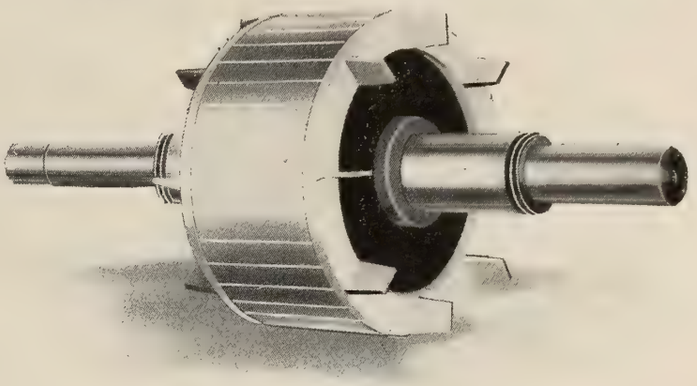
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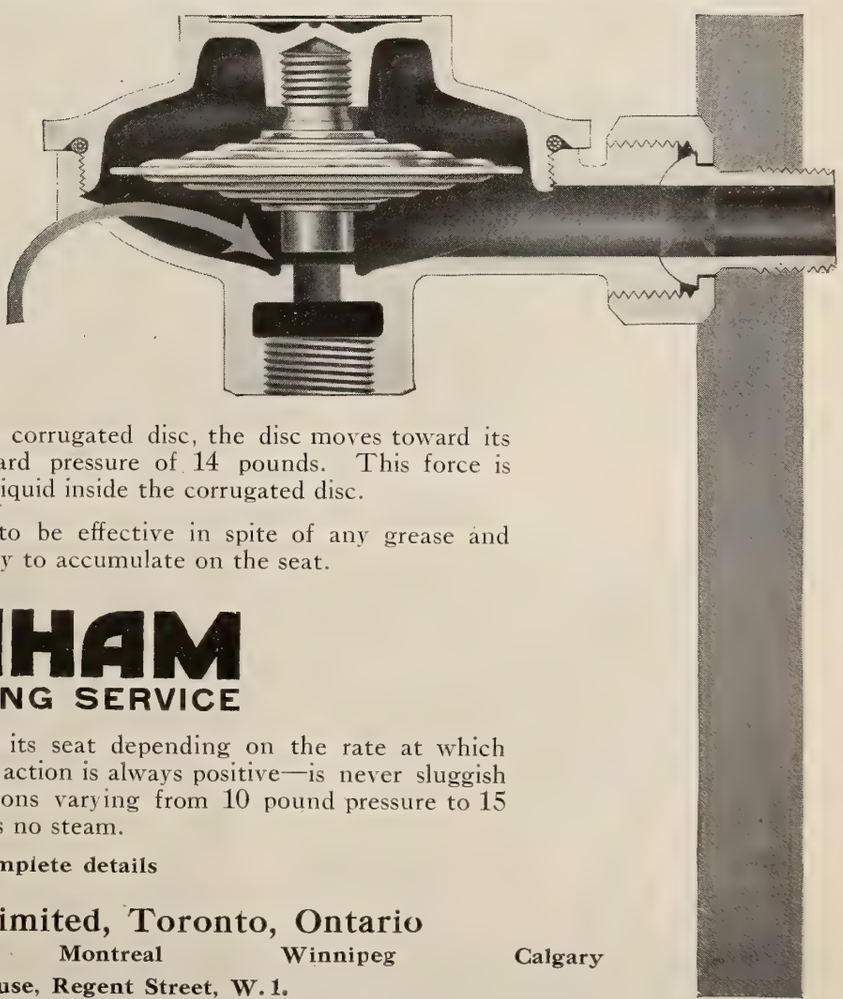
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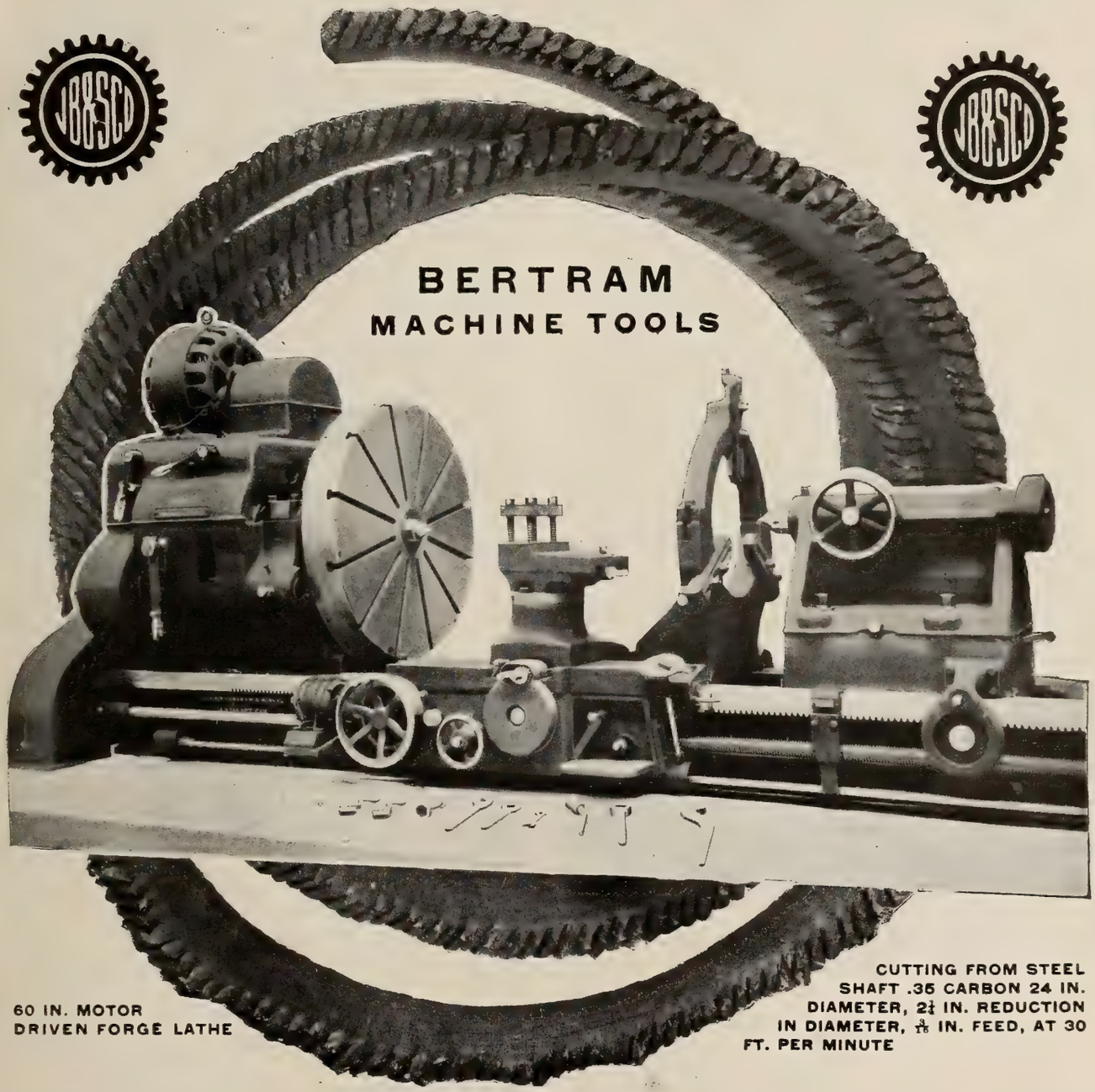
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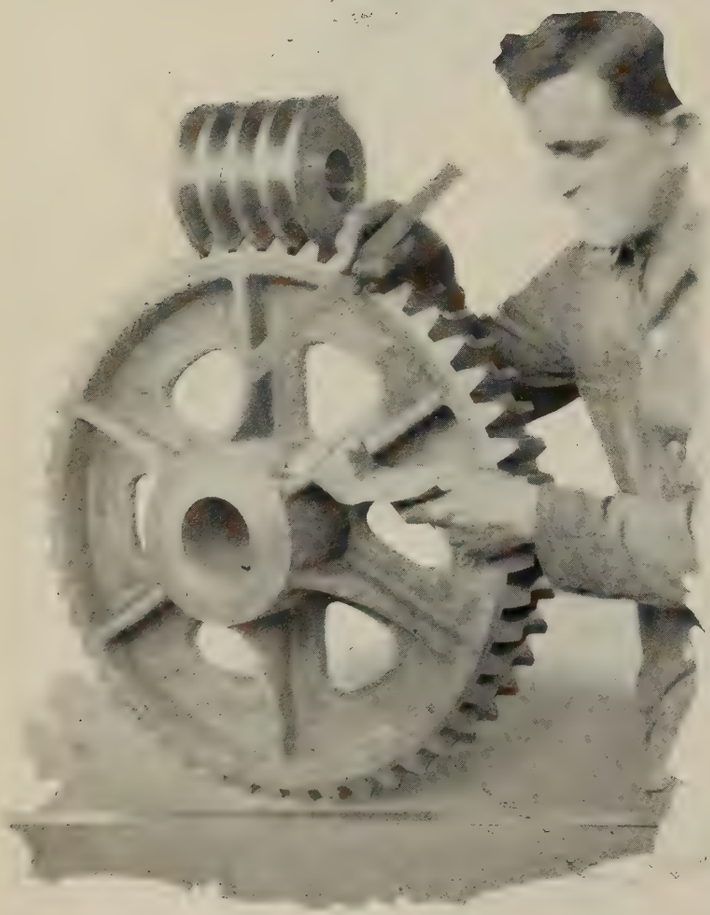
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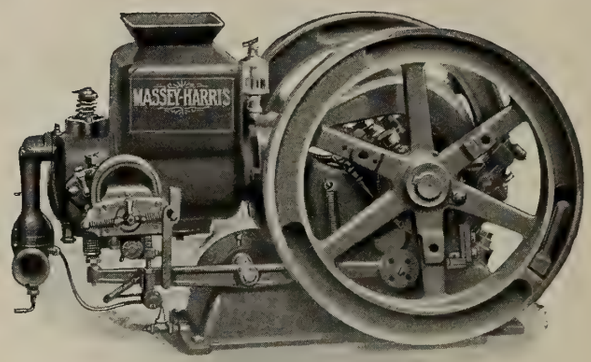


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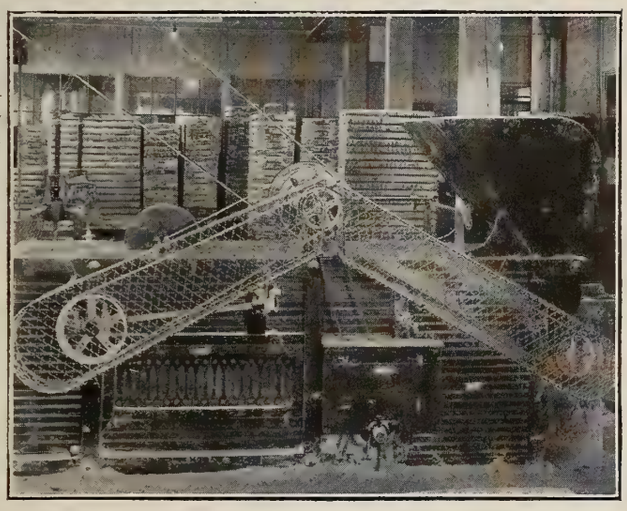
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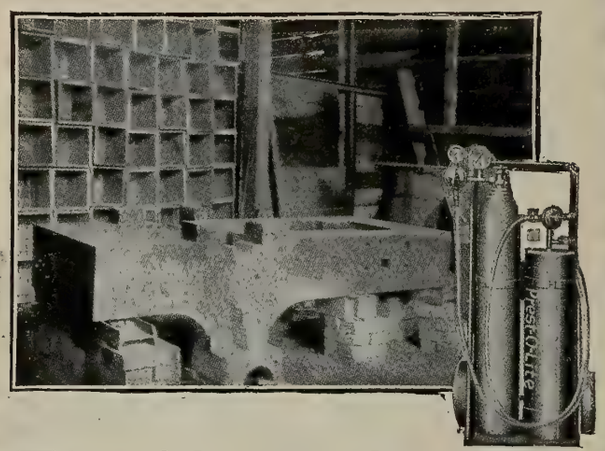
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Caustic Soda Chloride of Lime
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Apparatus consists of an equal pressure blow pipe, automatic regulators and gauges, and all necessary equipment. Adaptable for oxy-acetylene cutting by the addition of special cutting blow pipe.

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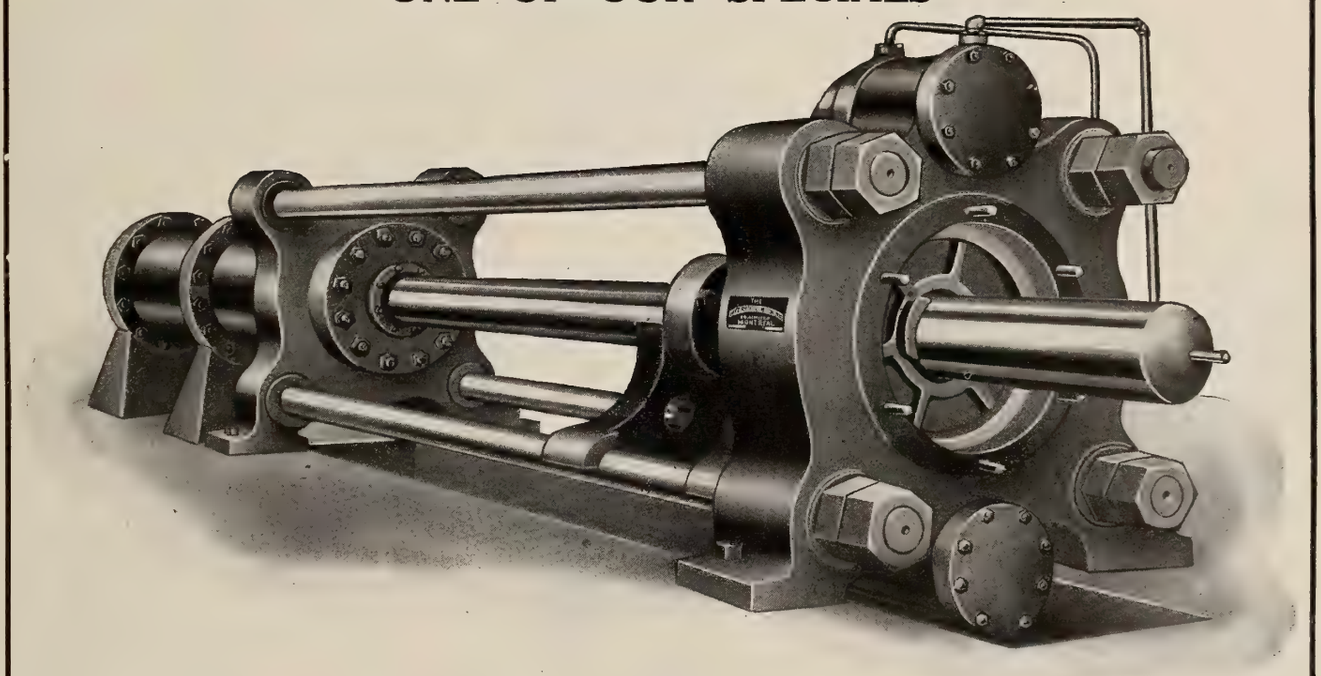
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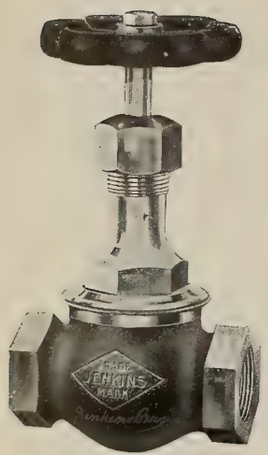


Fig. 106

TRADE JENKINS MARK

Jenkins Bros

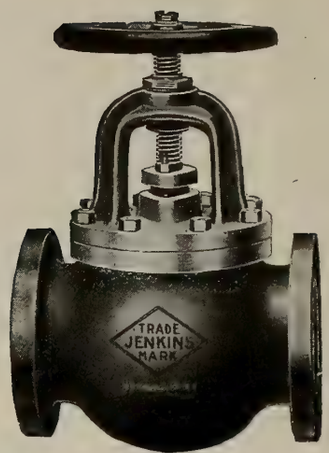


Fig. 142

Where Jenkins Bros.' Valves Go In— Troubles Go Out

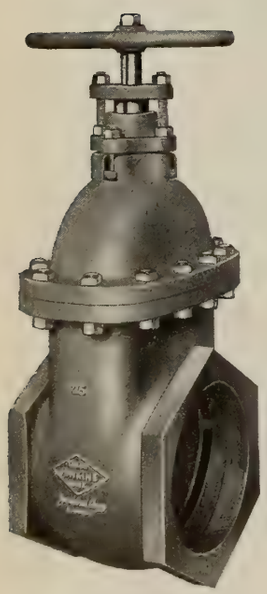


Fig. 401

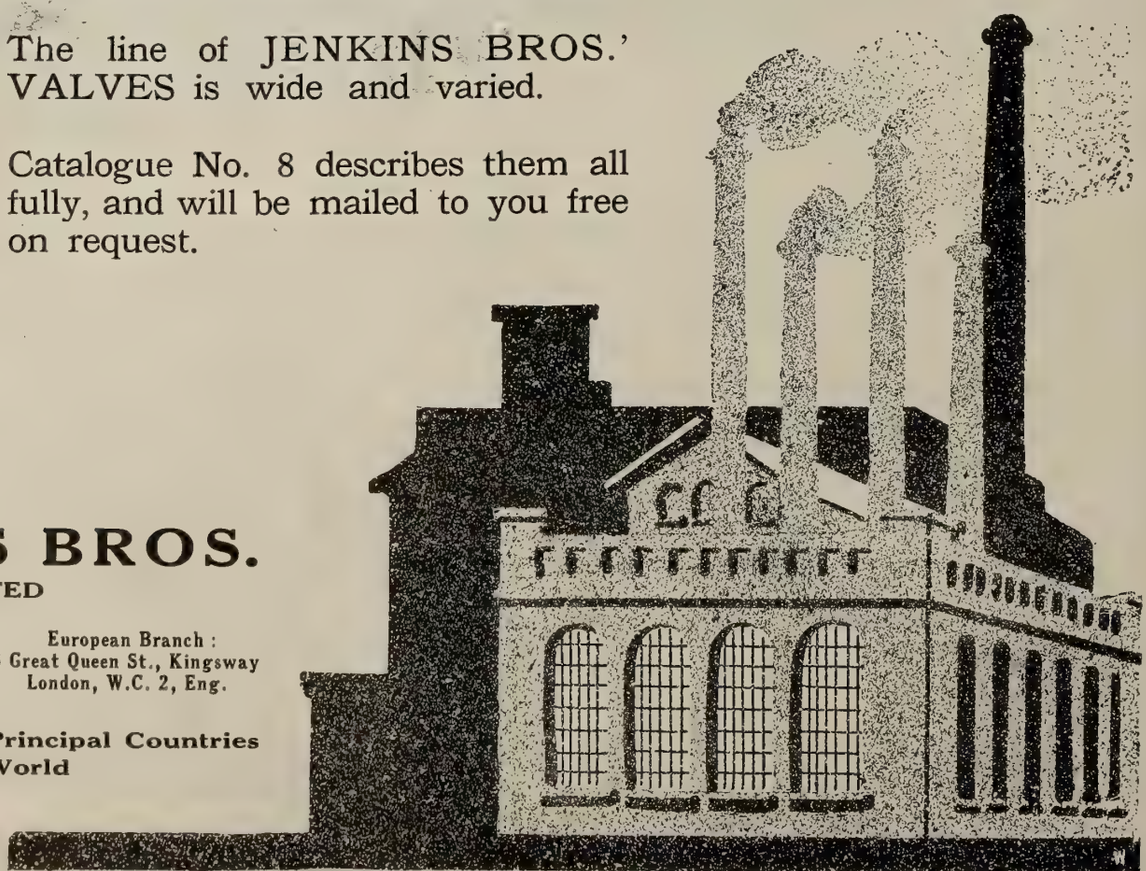
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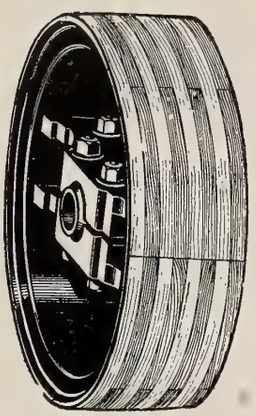
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To-day we make and sell everything for the mechanical transmission of power.

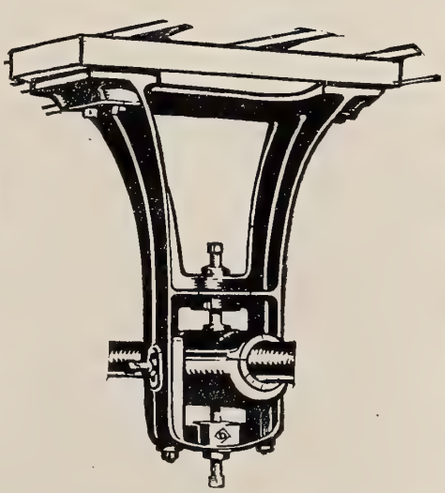
But Pulleys, Shafting and Hangers are the bread and butter of our business---and we never lose sight of this fact.

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Every day we make about three hundred of them. That's why you can always get them from stock.







It's the same way with Dodge Universal Hangers. We put through batches periodically, whether orders are in the shop or not. We know that orders will come, and that most of them will be marked "Rush."

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Rolling Steel Door

FIREPROOF DOORS *to the* UNDERWRITERS' REQUIREMENTS

YOU may have conditions for which one particular type of door is peculiarly suited. You should have this door. Write us, because we are the one concern in the country that makes a full line. No matter what the conditions are, we can satisfy ***you and the Underwriters*** and give you goods that have exclusive features.



Sliding Tin Clad Door

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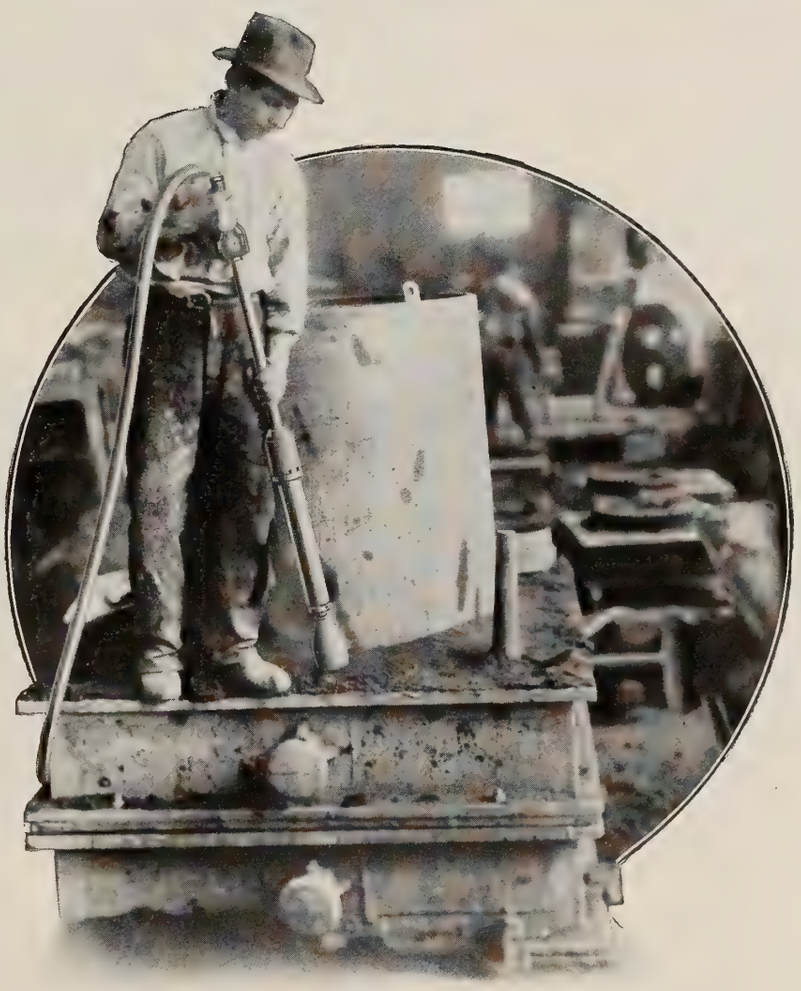
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THE "CROWN" PNEUMATIC RAMMER

Not the Name of a Thing But the Mark of a Complete Sand Ramming Service

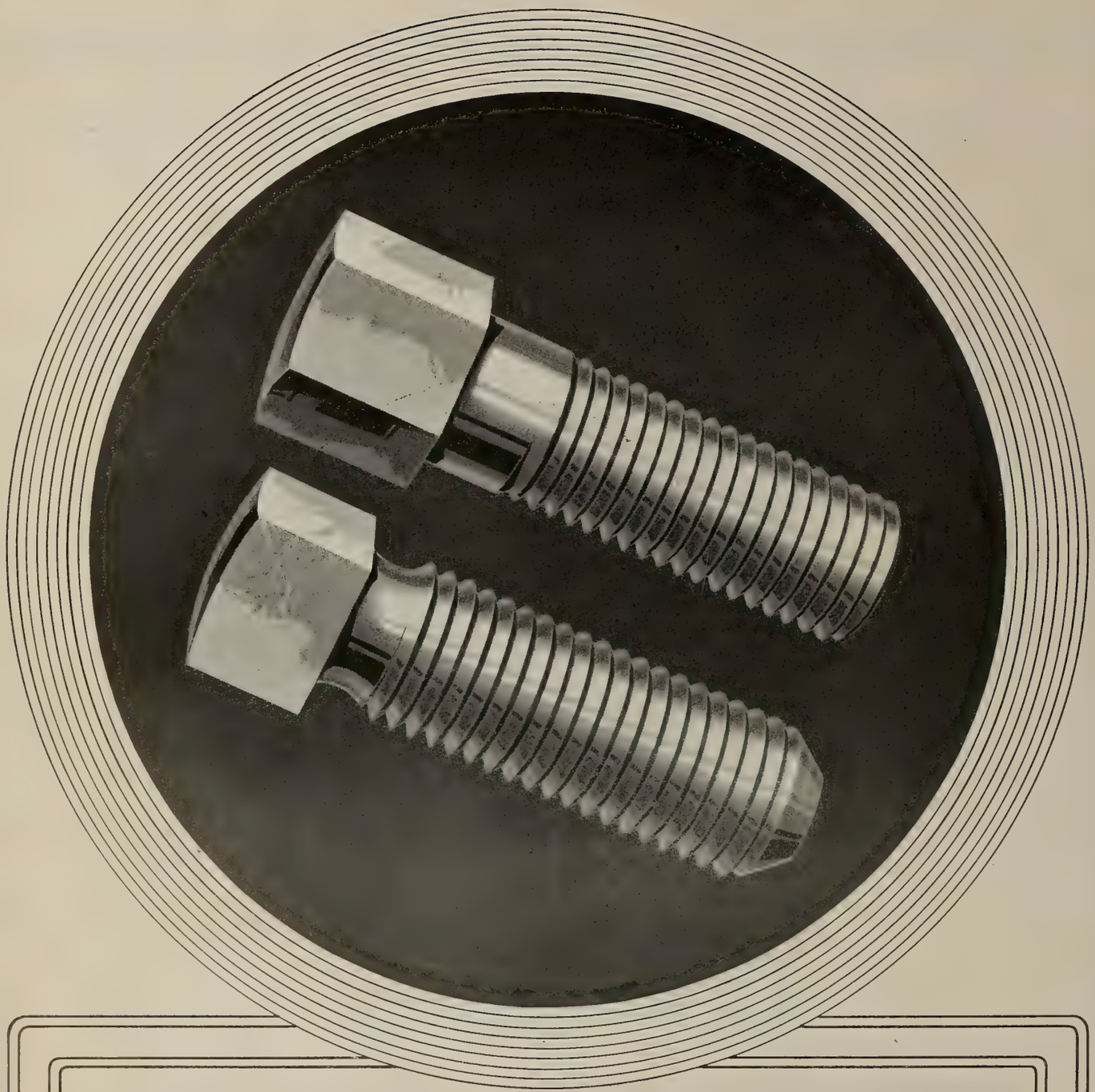


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"Crown" Pneumatic Rammers are made in both bench and floor models and what they are accomplishing for others they will do for you. A copy of the latest "Crown" bulletin is yours for a post card.

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IMPERIAL

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For Manufacturing, Mining and Milling

CYLINDER OILS

Imperial Valve Oil
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Imperial Capitol Cylinder Oil
Imperial Beaver Cylinder Oil
Imperial 20th Century Cylinder Oil

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Imperial Kearsarge Engine Oil
Imperial Solar Red Engine Oil
Imperial Atlantic Red Engine Oil
Imperial Junior Red Engine Oil
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Imperial Renown Engine and Dynamo Oil
Imperial Standard Gas Engine O l
Imperial Ario Compressor Oil

Greater Power at Smaller Cost

REDUCE the friction load in your plant and get maximum power from every ton of fuel. Reduced friction also lengthens the life of machinery and adds to profit by reducing repairs and replacements and by a greater continuity of production.

Bigger and more dependable output from power-generating and power-using machinery is largely a matter of lubrication—*correct* lubrication, and *correct lubrication means good lubricants and the right one for each lubrication need.* Even lubricants of highest quality, like Imperial Lubricants, will not give the desired results unless they are properly applied.

Imperial Lubricants are right. They are carefully formulated from the best crudes. There is the *right* lubricant for the correct lubrication of every part and every machine under every service condition.

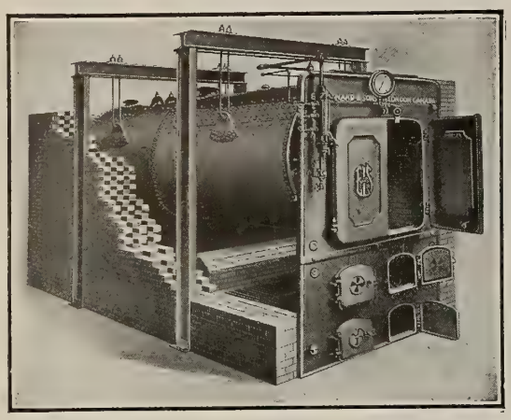
There are none better at any price. The use of Imperial Lubricants will make and keep your machinery efficient and capable of delivering maximum power at least cost per h. p. hour.

Consultation with Imperial Lubrication Engineers is yours for the asking. They will gladly study your lubrication problems and submit recommendations. Write to 56 Church Street, Toronto, or any of our branches.

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Power · Heat · Light · Lubrication

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Return Tubular Boilers
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1/8 to 5/8" thick up to 48" wide, weighing up to 1060 lbs. each

Fluid Compressed Steel Forgings

We manufacture Merchant Bars, Rounds, Flats, Squares, Ovals, Half Ovals, Tires, Sleigh Shoes, Plain or Twisted Concrete Bars, Agricultural Sections, Cold Drawn Shafting, Machinery Steel, Angle Bar Fish Plates, Track Spikes and Bolts.

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SPELTER—High-Grade Electrolytic Zinc, Brass Special and Prime Western

PIG LEAD—Chemical, Corroding and Common

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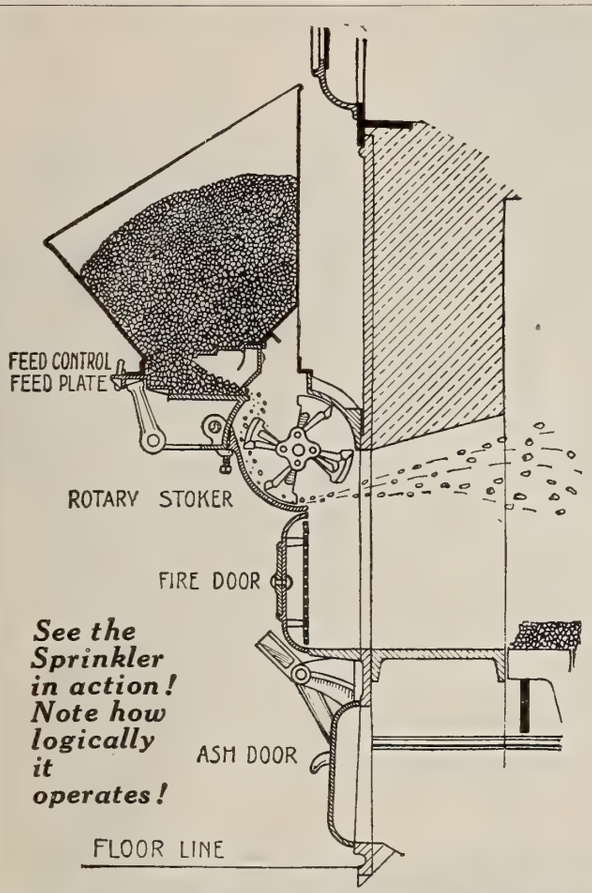
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Founded on the sound basis of pure raw materials and fathered by science and experience in the making, "Pillar" Brand Wall Plasters have no equal.

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THE GALT FOUNDRY CO., Limited

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THE GALT SPRINKLER STOKERS

For Smokeless and Economical Combustion and Utilizing Low-Grade Fuels.

For Power and Heating Boilers, Annealing Furnaces and other Installations.

Are installed in many of Canada's largest plants and are giving satisfactory results in economy of fuel and operating costs.

Can be installed with any type, size and make of boiler.

Can be quickly installed in existing plants with only minor changes in setting.

Will burn any kind of fuel, from anthracite dust to two and a half inch lump.

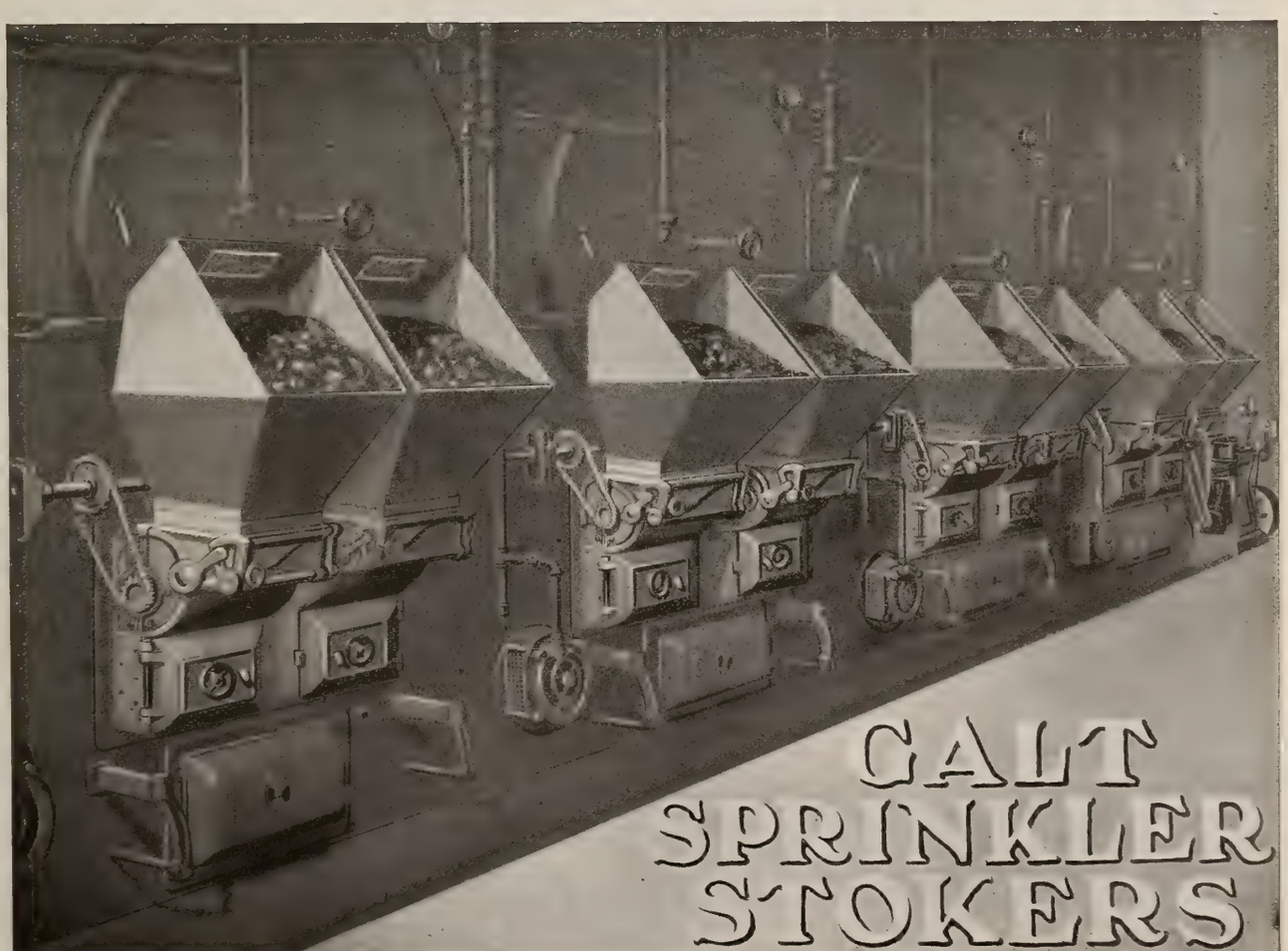
Maintain a fuel bed of uniform thickness over entire grate surface.

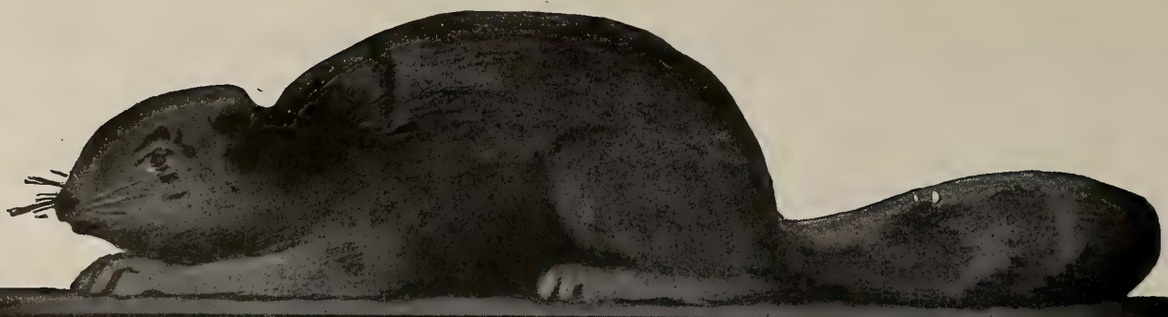
Furnace can be hand fired if necessary without interfering with Stoker.

Simple in construction----maintenance cost very low.

Our combustion engineers are at your service. Ask for Catalogue

We also manufacture the "McNAUGHTON" SECTIONAL ROCKING GRATE BAR and other Shaking Grate Bars





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Beaver Brand Metals

Copper, Brass, Bronze, Canada Silver, and Gilding Metal in sheets, rolls, plates and rods. Naval Bronze, Yellow Metal and Muntz Metal in sheets and rods for shipbuilding requirements. Specify Beaver Brass Rod for drilling and free cutting. Extruded shapes.



Guaranteed Ingot Metals—Yellow, Red and Composition Ingots.
We are Purchasers of Copper Bearing Material.

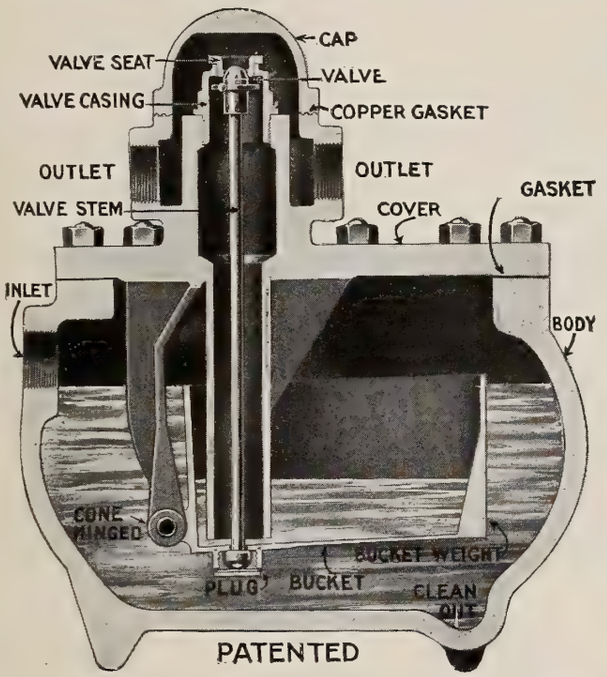
Link up with Beaver Brand Products—you'll like the quality, price and service.

Brown's Copper & Brass Rolling Mills, Limited

New Toronto, Ont., Can.

COPPER & BRASS BROWN'S QUALITY ROLLING MILLS

The Genuine Squires Improved Steam Trap



The Squires Steam Traps have repeatedly demonstrated their merits in high pressure plants, marine service, on low pressure heating systems, laundry machinery, steam separators, vulcanizers in rubber plants, dry kilns, drying rolls of paper machines and other places where steam traps are required.

All joints are above the water line and exposed to the temperature of steam only, therefore not encountering the corrosion or unequal expansion and contraction incident to the varied temperatures of a partially submerged joint. Every joint is machined, and jigs are used in manufacturing the traps, making all parts interchangeable.

With this trap you get an intermittent discharge through a wide-open valve, which assist in drawing the water to the trap and removing the water of condensation from steam pipes, steam separators, heaters, coils, stills, engine cylinders, receivers, etc. The valve is either tightly closed or wide open, thus eliminating the wire drawing on the valve and seat.

Access to the valve and seat is readily gained, without interfering with, or breaking any pipe connection, and they can be inspected or changed in a few minutes, by unbolting the cap, for valve and seat for any of the following pressures :—

0 to 10 pounds	**0 to 100 pounds**
0 to 30 "	**0 to 150 "**
0 to 60 "	**0 to 200 "**

and upwards

The genuine Squires Steam Trap contains no floats, no levers, no joints to fill with dirt, its valve cannot become displaced, neither has it a steam to pack. It will discharge the water of condensation to any height corresponding with the steam pressure : one pound of pressure being necessary for every twenty-seven inches of lift desired. It will also discharge against any pressure less than the pressure at the trap.

For further Information or Prices on the Squires Steam Trap apply to any of our Offices as mentioned below

CANADIAN ALLIS-CHALMERS

LIMITED

Head Office - TORONTO

Branch Offices: **Montreal, Quebec, Halifax, Sydney, St. John, Ottawa, Hamilton, London, Windsor Cobalt, South Porcupine, Winnipeg, Calgary, Edmonton, Nelson, Vancouver and Victoria**



Plant of the John Inglis Co., Limited

ENGINES BOILERS AND TANKS

of All Kinds for Any Service

Send us your enquiries

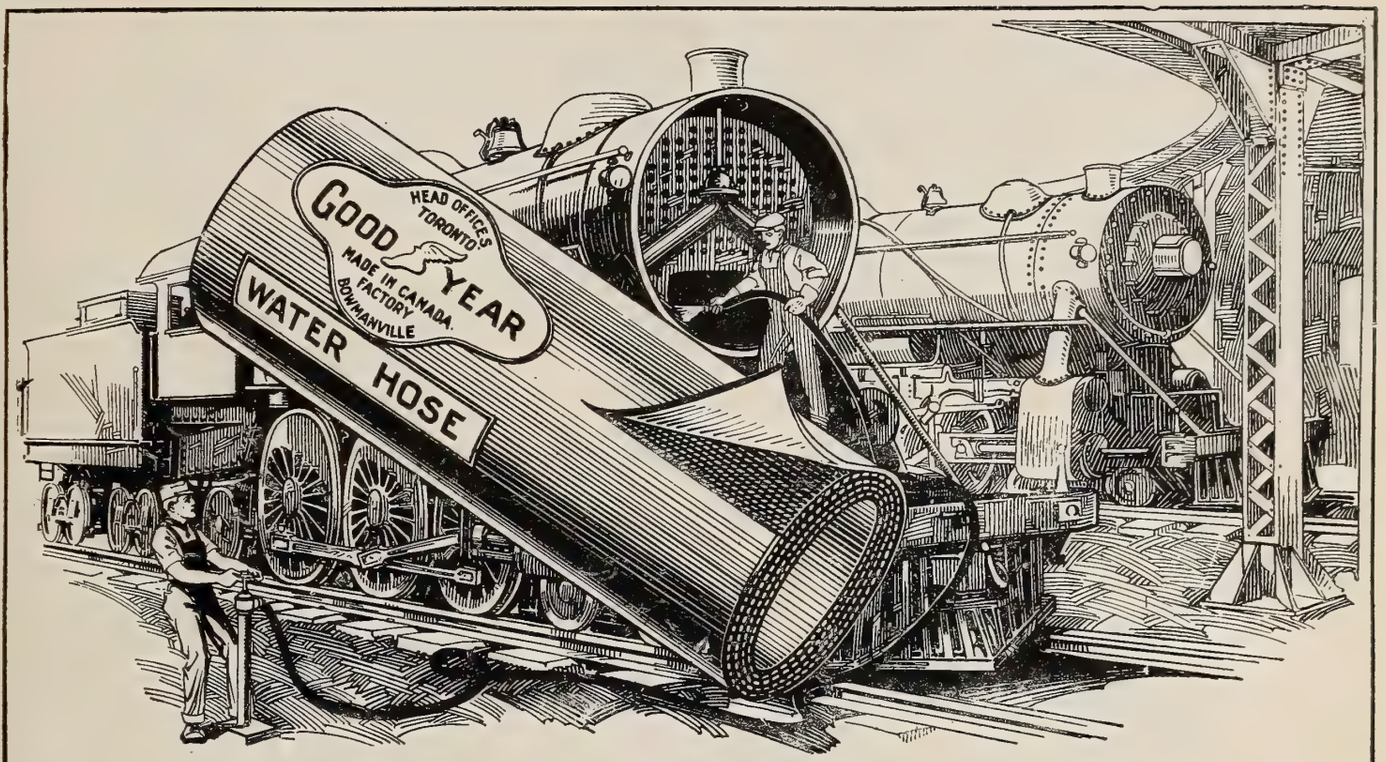
THE JOHN INGLIS COMPANY, LIMITED

Engineers and Boilermakers

114 STRACHAN AVENUE - TORONTO, CANADA

Representatives in Eastern Canada—JAS. W. PYKE & CO., Limited, 232 St. James Street, Montreal

Ottawa Representative—J. W. ANDERSON, 7 Bank Street Chambers



This Cover Reduces Costs *on Industrial Water Hose*

We never heard of industrial water hose bursting because of internal pressure. Any fairly good water hose will stand all the pressure it will ever get in industrial use.

But we have seen and heard of thousands of feet of water hose which had to be discarded long before its time because the *cover* wore through.

That fact guided Goodyear scientists in designing Goodyear Water Hose.

They started with a good inner tube and strong fabric.

But they put on this hose an unusually thick cover of exceptionally tough rubber.

Water Hose is dragged over floors and pavements and steel plates. It is walked on and run over by hand-trucks and wheelbarrows. It is left outside rain or shine. *The Goodyear cover on Goodyear Water Hose is built to stand this use.*

That is why Goodyear Water Hose wears longer and so costs less.

That is an example of the way Goodyear builds all Industrial Hose—

—finding out what conditions must be met, and then developing the materials and construction to meet them.

Goodyear has scientifically developed a hose for every industrial use. Samples of this hose, and the advice of a trained technical man, are yours for the asking—without obligation. Phone, wire or write the nearest branch.

The Goodyear Tire & Rubber Co. of Canada, Limited

Branches: Halifax, St. John, Quebec, Montreal, Ottawa, Toronto, Hamilton, London, Winnipeg, Regina, Saskatoon, Calgary, Edmonton, Vancouver

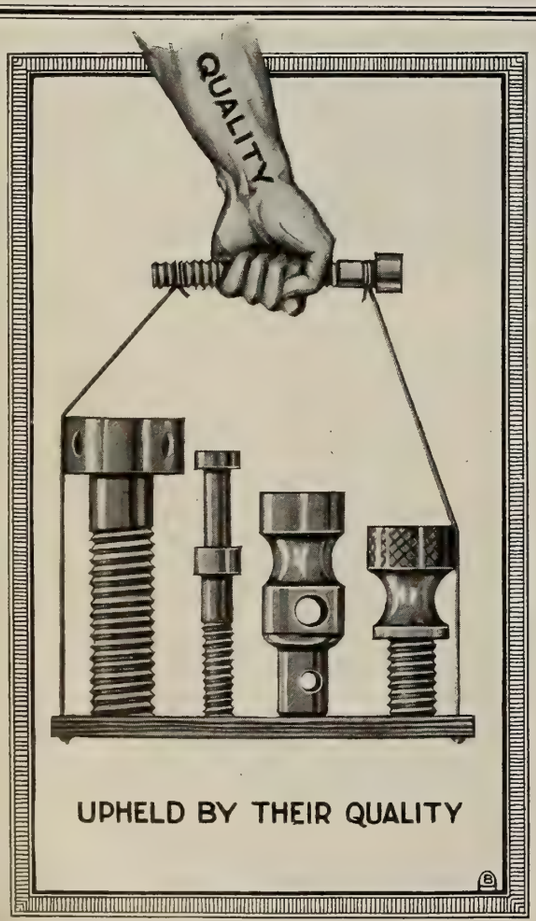
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DEEP DRAWING QUALITY
ACCURATE GAUGE AND WIDTH
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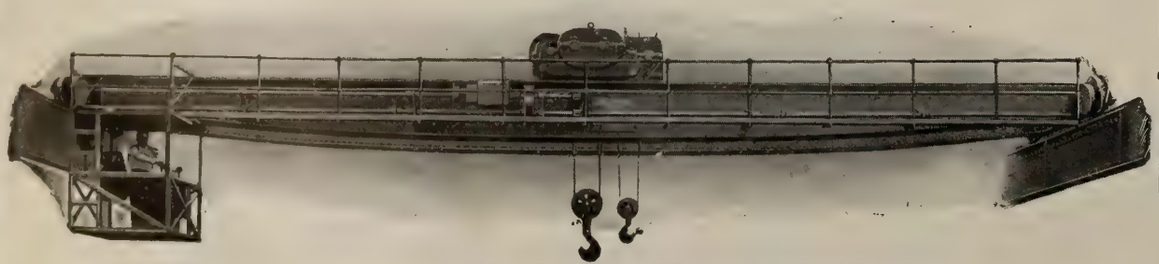
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Our Products are O.K. because:
Our Equipment is Modern
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and we use Material of
SUPERIOR QUALITY

Try us. We guarantee satisfaction and make prompt deliveries.

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233 BLEURY STREET, MONTREAL

"CRANES MADE IN CANADA"



Electric Traveling Cranes

HAND POWER TRAVELING CRANES
ELECTRIC HOISTS, AIR HOISTS, FOUNDRY EQUIPMENT

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MOTOR TRUCKS



2½-Ton Clydesdale Truck owned by City of St. John, N.B.

Clydesdale Trucks have become the first choice of men who know the best in heavy haulage equipment.

Every engineering detail of Clydesdale Trucks has been thoughtfully planned — and only finally adopted after painstaking experiment and exhaustive test under abnormal truck operating conditions.

From the standpoint of economy of operation, engineering detail, and continuously reliable performance under Canadian operating conditions, it is easy to understand the rapid growth in popularity of Clydesdale Trucks.

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Literature and interesting truck operation data will be mailed upon request

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Canadian Hart Wheels

CUT FASTER LAST LONGER

Than any other wheels on the market



OUR NEW MODERN PLANT

Tell us the service you want performed and we will supply you with an abrasive wheel that will save you time, money and worry.

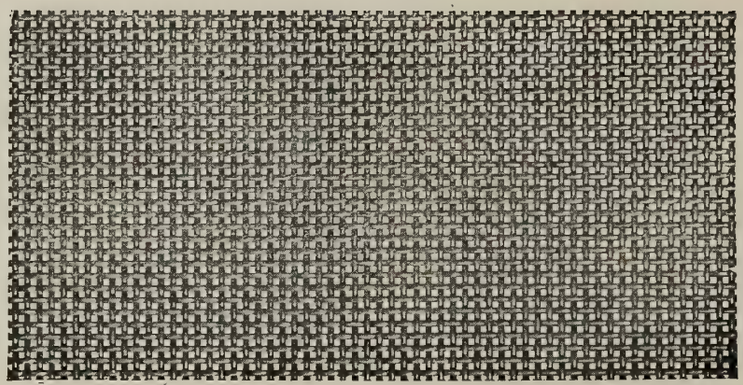
Send for one of our catalogues and tell us your troubles. We do the rest.

CANADIAN HART WHEELS LIMITED
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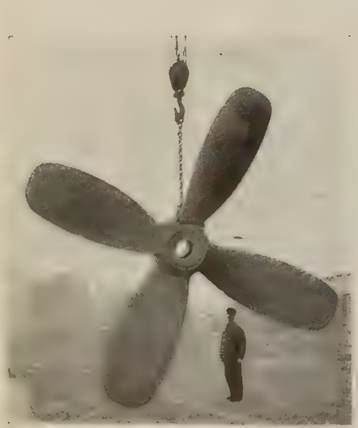
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Hamilton, Ont. **Montreal, Que.**

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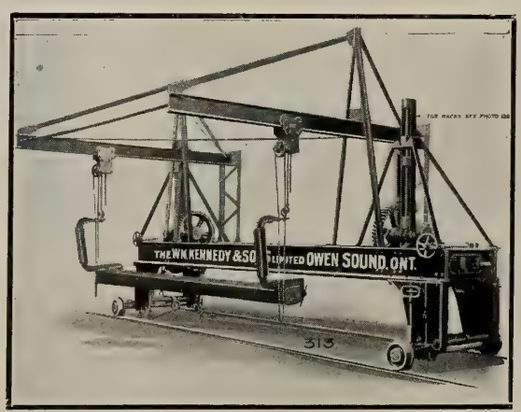
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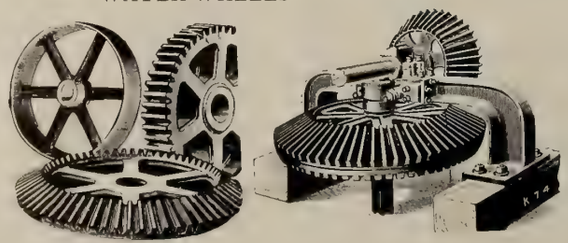


WATER WHEELS



STOPLOG WINCHES

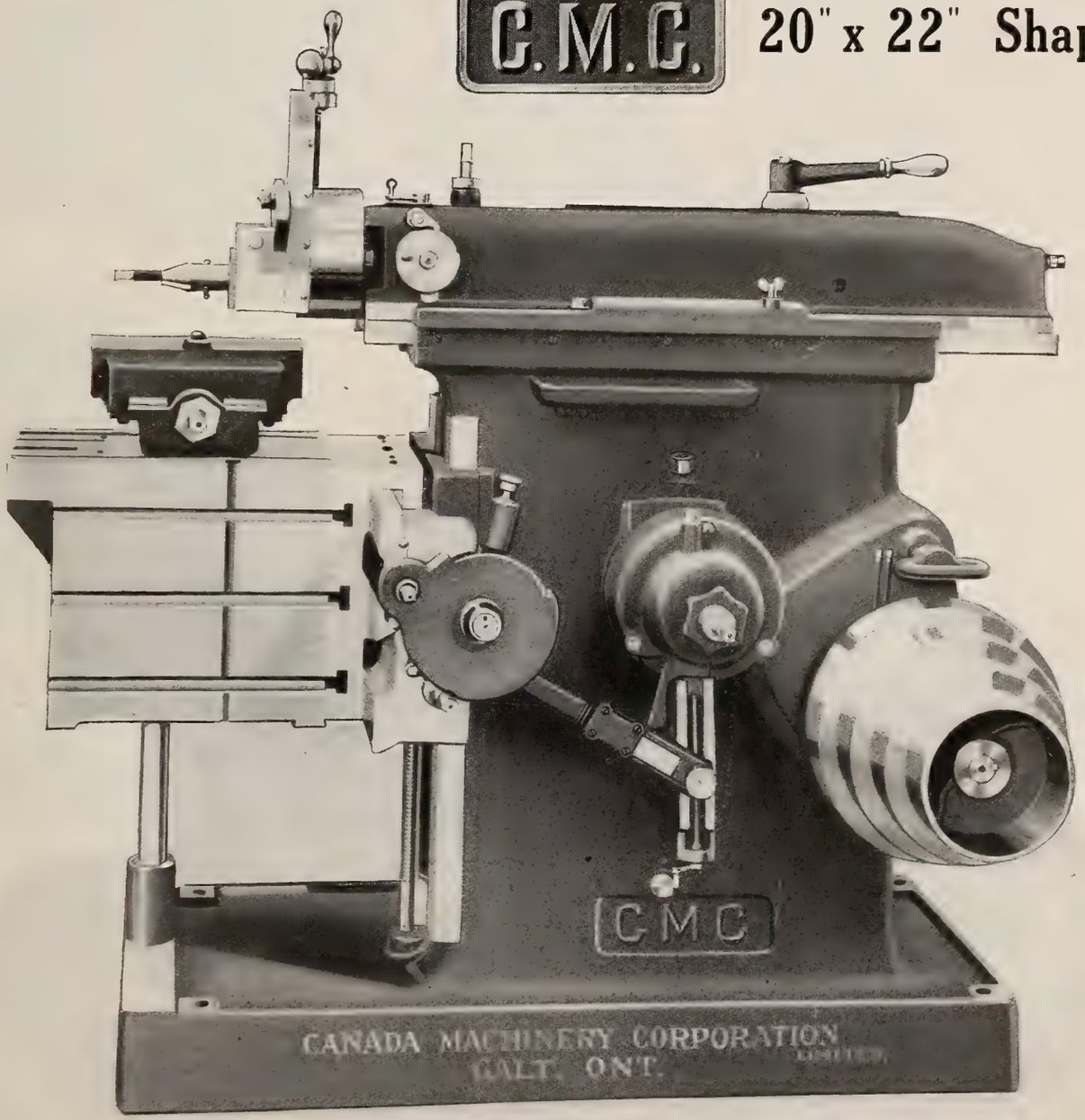
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C.M.C. 20" x 22" Shaper



Down Feed to Head **One Side Operation** **Improved Stroke Indicator**

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TORONTO OFFICE AND WAREROOMS - - - - BROCK AVENUE SUBWAY



A Wonderful Family Gift—Overland 4 With Three-Point Suspension Springs

GIVE your family a Christmas gift of "smooth roads" this year. Give them the new Overland 4 with Three-Point Suspension Springs, the greatest riding improvement since pneumatic tires.

With these springs Overland 4 seems to sail over bumps, cushioned from the shocks of the worst roads, with a road steadiness never before approached by a light weight car.

By protecting the car from road blows, Three-Point Suspension Springs prevent excessive wear, give every part longer life and make Overland 4 very economical in upkeep.

A still further source of economy in Overland 4 is its light weight which saves in the consumption of oil and fuel.

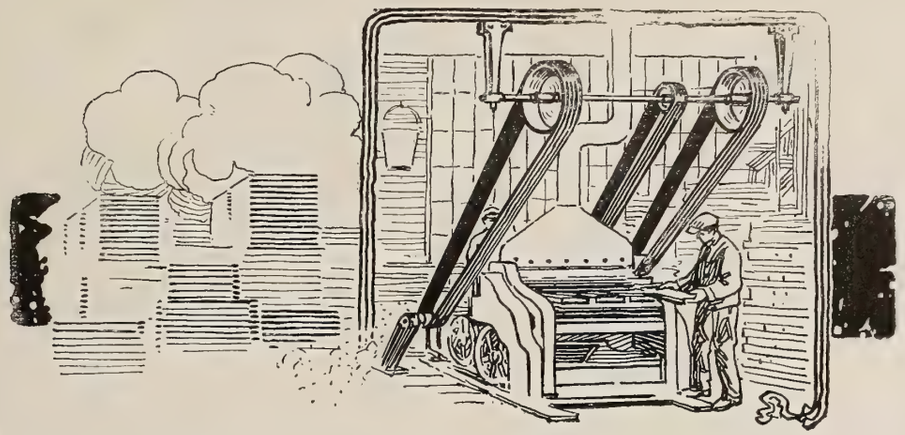
The equipment of Overland 4 is complete from Auto-Lite Starting and Lighting System to Rain-Vision Windshield.

Ask the Overland dealer to show you this unusual car. Try its remarkable riding ease. It sets a new standard of comfort. Booklet on request.

WILLYS-OVERLAND, LIMITED

Sedan, $1,995; Coupe, $1845; Touring Car, $1 195; Roadster, $1 195. Prices f.o.b. Toronto. War Tax included.
Prices subject to change without notice.

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The higher cost of materials and labor, and the keenness of competition, make it necessary for manufacturers to produce their products at the lowest possible cost.

This means that more quantity must be turned out without increasing the manufacturing overhead, otherwise profits are bound to suffer.

Efficiency of equipment must be made greater today than ever before. This is where the remarkable performance of

Dominion Friction Surface Belting

demonstrates its superiority for every transmission purpose.

It helps to produce goods at lower cost by eliminating power waste, by its long life, by preventing idle employees and machines, by its low up-keep cost, by its elimination of most transmission troubles.

Let our engineers go over ***your*** plant and demonstrate to you that Dominion Friction Surface Belting will help produce ***your*** goods at lower cost.

This confers no obligation or cost, and every suggestion is subject to your approval.

Address the nearest Service Branch.

CANADIAN CONSOLIDATED RUBBER CO. LIMITED
DOMINION RUBBER SYSTEM
AND ASSOCIATED COMPANIES

Makers of Dominion Hose, Packing and Industrial Rubber Goods and Dominion Tires, the GOOD Tires for every purpose.

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We can quote on your entire equipment.

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THE SUPER SANDER



"The Invariable Choice of the Man Who Knows."

No. 431 Endless-Bed Sander

This Sander has revolutionized the methods of handling short stock. The travelling bed, covered with sligthly resilient rubber discs, carries the stock through the machine with minimum wear on the sandpaper.

Equipped with Yates Spiral Drums, the only continuous cutting drum. Sturdily built on vibrationless base. Many exclusive features provide "short cuts to production."

Full details and sectional views are contained in our Sander Book, which will be sent free on request. Send for it to-day.

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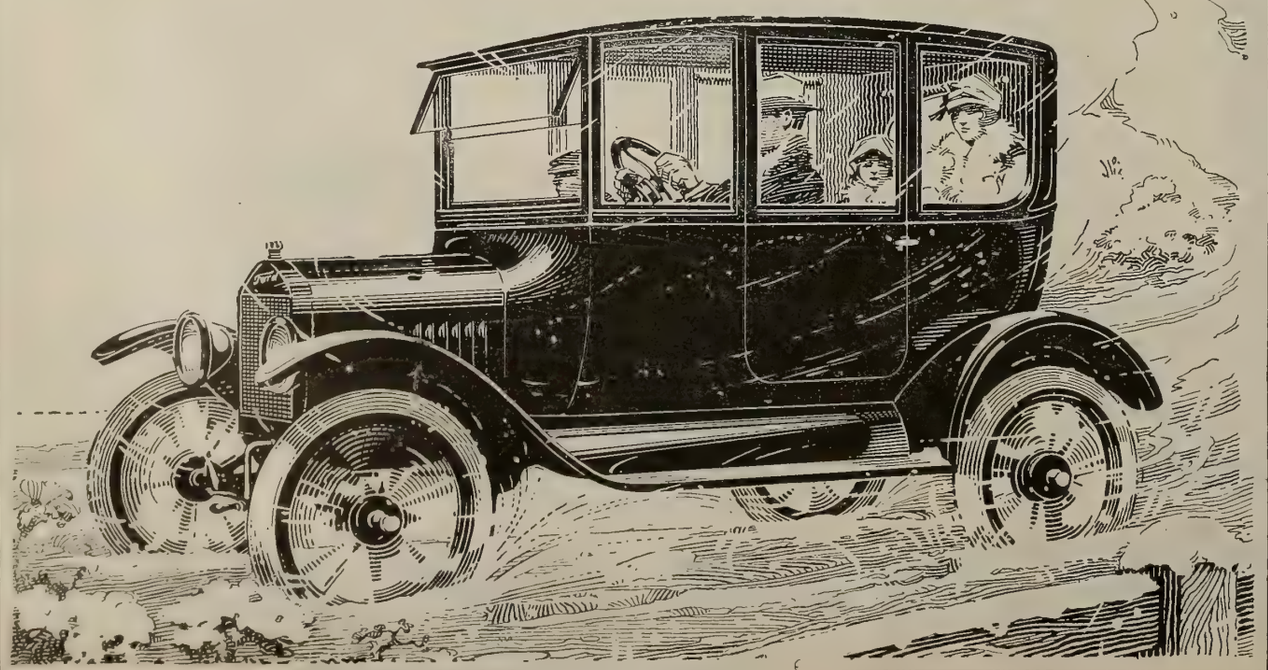


Ford Motor Company
OF CANADA LIMITED
FORD, ONTARIO

A LASTING CHRISTMAS GIFT

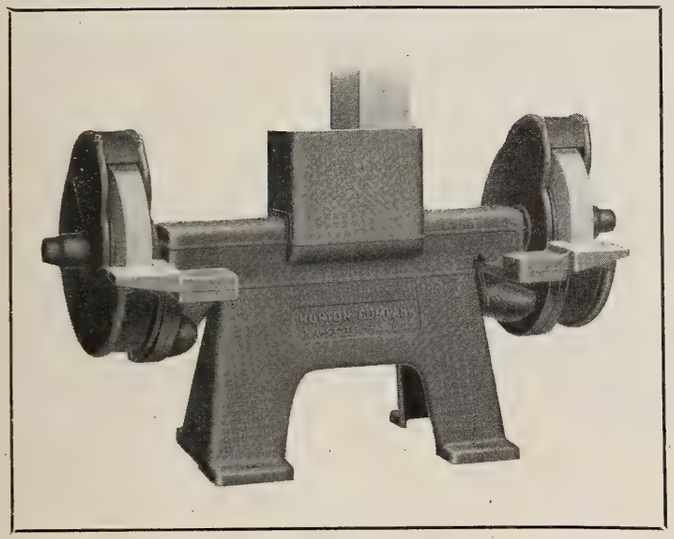
The Ford Sedan will be a constant source of pleasure in the years to come. Make this Christ-mas the beginning of a long season of happiness by pre-senting the Family with a Ford Sedan—the car of comfort at a reasonable price.





NORTON

GRINDING WHEEL STANDS



Norton Floor and Bench Stands, equipped with Norton Protection Hoods through their heavy, rigid construction give strength, utility and safety—an ideal combination.

Alundum wheels for materials of high tensile strength—all kinds of steel.

Crystolon wheels for materials of low tensile strength—cast iron, bronze, brass and aluminum.



The ideal working combination is a NORTON floor stand equipped with ALUNDUM or CRYSTOLON wheels. The choice of the wheel depends upon the nature of the work to be ground.

Sturdy construction, excellent provision for safety in the equipment of a protection hood, facilities for the attachments of a dust exhaust system, and belt protection devices together make the NORTON floor stand a safe and practical machine for the foundry and machine shop.

The operator works with ease, and this enables him to handle heavy work without extra strain. The absence of sharp corners, projecting parts, and recesses where dirt and dust can lodge are further recommendations for this floor stand.

NORTON COMPANY, Worcester, Mass.

ELECTRIC FURNACE PLANTS

Niagara Falls, N.Y. Chippawa, Ontario

NEW YORK STORE
151 Chambers St.

DETROIT STORE
73 W. Congress St.

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Sparling Service at Work

What it accomplished at Chatham it can do again



COMPLETED INTERIOR OF DOWSLEY SPRING AND AXLE CO'S PLANT, OCT. 20.

ON September 11th fire completely destroyed the Spring Plant of the Dowsley Spring and Axle Co. Sparling Service was summoned. Plans were prepared. Debris was removed. Work of reconstruction was commenced. The steel work was erected. Brick work was rushed, etc. The new building was in actual operation by October 20th. Think of it: Just thirty-nine days elapsed between the removal of debris and the commencement of manufacturing in a new building.

But—Sparling Service guarantees more than speed. It guarantees efficient and economical construction. In this case there was a saving of about 30% of the cost of the steel over another building of the same size.

Mr. Sparling has associated with him experts in architecture, engineering and general contracting. These men give personal supervision to every detail and your future needs are provided for as well as those of the moment.



THE DOWSLEY SPRING AND AXLE CO'S PLANT ON SEPT. 11

If speed, efficiency and economy count, summon Sparling Service to solve your problems of construction.

Consult Sparling Service—It places you under no obligation whatsoever.

The Wm. F. Sparling Company

Architects, Engineers and General Contractors

120 Bay Street TORONTO

Phone—ADELAIDE 120

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ANNOUNCEMENT

of Special Interest to Users of

DROP FORGINGS

THE Dominion Forge & Stamping Company have sold their two Stamping Plants.

This means that the entire resources and energies of the Company will be devoted to the Drop Forge Industry.

Extensive additions are being made to their Forge Plant to take care of the increasing demand for drop forgings in Canada.

This Plant is one of the largest and best equipped drop forge plants on the continent; and to maintain this position in the industry the Company decided on this policy of concentration.

Forgings are made to customers' blue prints and specifications. Inquiries are solicited.

Dominion Forge & Stamping Co., Ltd.

Walkerville, Ontario

Toronto Office: 206 Excelsior Life Building



Confidence!

THE confidence of a child is the confidence that knows no danger. Self-preservation is a dormant law at babyhood. Yet fear is one of the earliest instincts. It grips with the coming of stern realities. It grows with the passing years.

Children enjoy their play when fear is absent. Men work better when they know that their lives and limbs are protected. A feeling of confidence—of safety, permeates a factory that is well lighted and its machinery properly guarded.

Benjamin
PRODUCTS

Promote Industrial Safety

In hundreds of factories Benjamin Products are banishing the fear of accidents and replacing it with the confidence that reflects itself in better and more work.

Tests show that Benjamin Industrial Lighting installations mean a reduction of 25% in accidents, 12% more production and 25% less spoilage.

Benjamin Lighting Fixtures, Benjamin Punch Press Safety Devices, Benjamin Industrial Signals and various other Benjamin Products make "Safety First" more than a slogan.

The Satisfaction of Safety

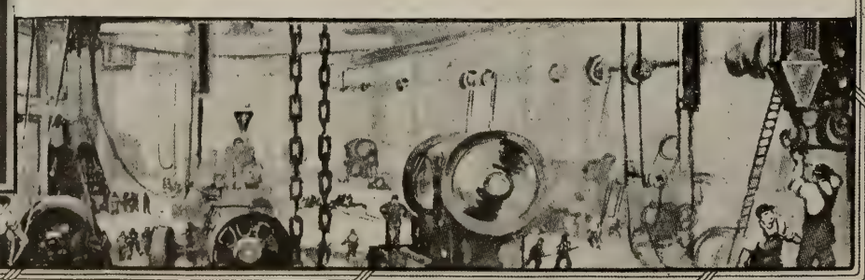
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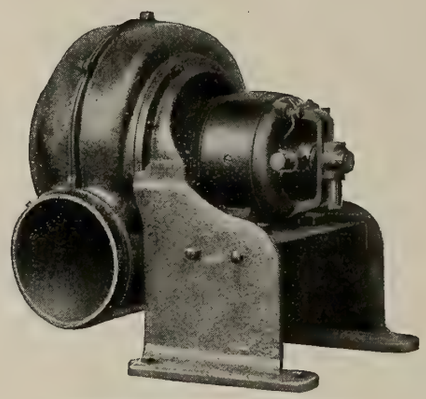
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Westinghouse Ventura Fan



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Issued monthly as the official publication of the Canadian Manufacturers Association (Incorporated), and devoted to the advancement of the industrial and commercial prosperity of Canada.

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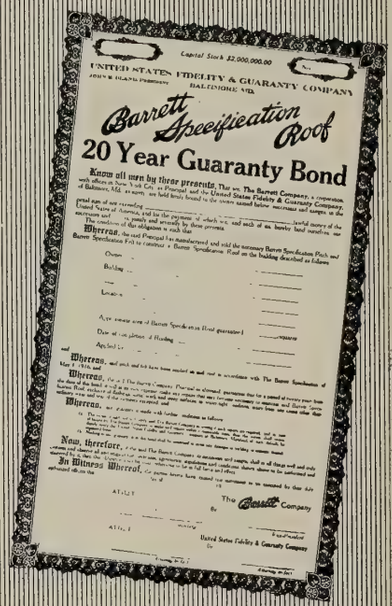
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Industrial Canada

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The Canadian Manufacturers Association
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Vol. XX. TORONTO, DECEMBER, 1919 No. 8

Editorial Comment

Wild Theories at the International Labor Conference

ONE of the Italian delegates at the International Labor Conference at Washington suggested that all raw material in the world should be pooled and placed under the jurisdiction of some international body, who would distribute it to the various countries according to their needs. As Italy is notoriously short of raw materials, there was considerable wisdom in his proposal from his country's point of view, but the nations which are plentifully supplied with raw material did not receive it with enthusiasm.

An English delegate claimed that the institution of private property was the primary cause of unemployment, and that, therefore, all private property should be abolished. This proposal was rejected by the other labor delegates, who, apparently, had some private property of their own.

Unemployment at the Labor Conference

THE Labor delegates at the International Labor Conference seemed determined to force the acceptance of some international arrangement by which the unemployed would be placed on the pay-roll of their respective countries indefinitely. Unemployment pay brought disastrous results in Great Britain, and it is significant that it is being dropped. In most cases unemployment pay is an invitation to stop working. The introduction of any system of unemployment pay or insurance would be particularly unfortunate in Canada. Here our problem is not to provide for unemployment, but to secure enough people to do the work which is waiting to be done. Before the war we were securing at great expense immigration at the rate of about half a million a year. In normal times there is always a shortage of labor in Canada. As a general rule, anyone who wants work, and will accept the kind of work available rather than remain idle, need not be idle. At intervals of seven to ten years in our history there have been periods of depression when there was unemployment for a few months, but in these cases special measures were taken which were as satisfactory as any that could be devised under the circumstances. Even in periods of depression in Canada it was found that a great proportion of the unemployed were people who should never have left the farms, and were attracted to the city by the hope of getting easier work at higher pay and enjoying the excitement of city life. The rapidity with which Canadian industry and agriculture absorbed the Canadian army is sufficient proof that Canada has nothing to fear from the spectre of unemployment.

The surest way to create unemployment is to bonus it.

Asking for Something Every Year

IN addressing the International Labor Conference at Washington, the Right Honorable George N. Barnes, representative of the British Government, made the following observations:—

> "My labor folks—and I regard myself, too, as being a labor man, although I happen by the accident of time to be a Government representative—my labor colleagues and comrades will think I have been somewhat moderate and modest in my proposals. If so, I would say to them that this conference is not the last conference. It is the first one. I would say to them that what we cannot do this year, we may do next year, or the year after."

Mr. Barnes states very concisely the attitude of labor towards these annual international labor conferences. They propose to come to them year after year always asking for more. It is necessary that employers should understand that the labor sections of the Peace Treaty were incorporated in the Peace Treaty by the direct action of those Governments which have partially surrendered themselves to labor. The International Labor Conference will tend to become a gigantic machine for propagating theories, which will injure both employees and employers. In any case it will furnish the means by which a constant agitation will be maintained; and the primary objects of this agitation will be to shorten the hours of work unduly, to increase wages beyond economic limits, to advocate the extension of various kinds of compensation and insurance

schemes, and in general to continue increasing the cost of living. As a general rule, employers want to treat those who are working for them fairly. They know that men and women work better when their hours are not too long, when they are well paid, and when they secure recognition for individual capacity. But employers are in a constant state of uncertainty because they do not know where the demands of their employees are leading. If they ask a forty-four hour week to-day, what will they ask next year and the year after? The coal miners of the United States struck for a thirty-hour week, and the whole North American continent is suffering as a result. If employees would make reasonable requests, abide by them for say a period of ten years, and undertake financial responsibility for breaking agreements, they would find employers ready to meet them more than half way.

Mr. Parsons on the Eight-hour Day

AS a delegate representing all the employers of Canada at the International Labor Conference at Washington, Mr. S. R. Parsons, of Toronto, has been guided by the resolution regarding the eight-hour day passed by the employer delegates at the National Industrial Conference in Ottawa last September.

In voting against the draft international agreement at the Washington Conference Mr. Parsons made the following statement:—

"I beg to make a short statement on behalf of myself and those whom I represent, the Canadian employers, in connection with this report which is now before the conference, and I may say I will hand a copy of this to the translator afterwards so that he can read it in full. In speaking for Canadian employers, many of whom have been consulted since this conference was in session, I beg to state as follows:

"1. While in many industries the eight-hour day is already in operation, especially in the building trades and in manufacturing, where the work is laborious, yet the general application of the shorter working day would, according to actual experience, greatly lessen total production.

"2. At the present time when the Government of the country is calling upon manufacturers to increase their output and exports in order to meet heavy national obligations, nothing should be done which would tend to hinder them in their efforts.

"3. Only by increased production can the cost of living be reduced to all classes. To ignore this fundamental truth is to blind our eyes to actual facts.

"4. While having regard to world-wide interests, it must be remembered that Canada is a young and undeveloped country. To attempt to put her upon the same footing as old world countries with entirely different conditions is like placing a young and vigorous giant on the same footing as a man advanced in life. We should have the opportunity of living our own life and managing our own affairs to suit our circumstances. If we can achieve more than others as a nation it is surely not only our privilege but our duty to do so. Why should our national life and development be dwarfed? An ancient philosopher has well said, 'That which is not good for the beehive can not be good for the bee.' Compulsory reduction of hours militates against establishment of new and small industries, and if the workman is to be hampered in his effort to rise a serious blow is struck at the national life of a young and rapidly developing country.

"5. An attempt was made in the eight-hour day committee of this conference to include in the draft convention all purely commercial undertakings, such as wholesale and retail stores, banks, etc. This proposition did not carry a majority in favor of it but will be considered again at a later conference. It has also been announced that agriculture has already been included in the programme of some countries proposing to come under this legislation. Evidently what is aimed at ultimately is an attempt to drive all the workers of the world like a flock of sheep into the eight-hour pen, regardless of the world's requirements. It is not suggested for a moment that the general acceptance of the eight-hour day will settle now or permanently our social and industrial problems, including hours of work.

"6. Under the proposed legislation Governments will be called upon to deal with economic questions to a much greater extent than ever before. It is quite conceivable that influences are likely to be brought to bear upon politicians from one direction or another in connection with such legislation and the administration thereof which would not make for national soundness or prosperity. There is much truth in the statement 'that Government is best which governs least.'

"7. Employers of Canada, representing all employing classes, at a national industrial conference in the city of Ottawa in September last, considered this question and agreed unanimously in a resolution calling upon the Government to appoint a commission on which employers and employees should be represented, to study the possible application of the eight-hour day to all branches of industry. If it can be demonstrated after such study, that the eight-hour day is sound economically as applied to Canada, and in the interest of all classes, including the workers, I feel safe in saying that the manufacturers—and I believe also the employers generally—will be glad to co-operate in bringing it into being. Meantime I have no option but to oppose the legislation as per draft convention before this conference.

"8. It is generally recognized that unless the United States accepts similar legislation, it would be placing an unfair burden upon Canadian employers, and the country at large, to be bound by the terms of the proposed convention."

Mr. Parsons stood firmly in support of the necessity of increasing production, in the face of the present international shortage of almost all products.

"What labor wants," said Hon. Mr. Barnes, a labor minister in the British Cabinet, during the Conference, "is more leisure."

Mr. Parsons thought that the world needs goods of every kind more than labor needs leisure.

Greater production means more food, clothing, houses, fuel, and other necessities for every one. Consequently, we should be advocating longer instead of shorter hours of work for every one till the crisis is past.

"A Canadian Tariff."

FOR two hundred years the fiscal policies of civilized countries have been divided into three classes, each class being founded on the theory of a school of political economy.

There are the "Protectionists," who believe that the industry of a country should be "protected" against undue foreign competition by means of a tariff, which should be regulated on various articles so as to allow home industries to develop.

Second, there is the "tariff for revenue" school, which advocates that a fairly uniform tariff should be levied on imports for the purpose of raising national revenues, and without special concern for the protection of any industry.

Third, there are the "Free Traders," who say that there should be no tariff on any imports, that all national industry should be fully exposed to foreign competition, and that national revenues should be raised by other forms of taxation.

Economic and political conflicts have raged about these three schools of fiscal thought for two centuries, and nations have either taken one of the above policies or compromised with features of two or even three of them.

In the coming revision of the Canadian tariff, the old controversies as to the respective merits of the above fiscal policies will doubtless be revived, unless a new course is followed.

What is our national fiscal problem? Is it not threefold: to raise revenue, to develop the country, and to supply the needs of its inhabitants?

Can we unite our energies in the task of framing "A Canadian Tariff"—that is, a tariff which will assist in the task of developing Canada as a great country within the British Empire?

Canada's Depreciated Dollar.

IN itself a decline in the exchange value of a country's currency need not be regarded as an evil. Depreciation in its unit of circulation in the markets of another country, by working as a deterrent to foreign buying and by encouraging home production and export trade, may be considered as actually a benefit. On the other hand, a depreciated currency is a symptom of a state of affairs that no self-respecting nation should view with equanimity.

So far as Canada is concerned, the depreciation of our dollar in New York, through the money markets of which practically all our financial transactions with the rest of the world are carried on, has come about largely through the creation of an adverse trade balance with the United States. This adverse balance for the last fiscal year amounted to something like $272,504,220, coupled with which was the necessity of transferring large cash balances to meet the interest charges on Canadian securities held by United States citizens.

Obviously the discount on our dollar can only be eliminated in one way and that is by wiping out the unfavorable trade balance. By buying less from and selling more to the United States this desirable result can undoubtedly be achieved. It should become the duty of all producers, and particularly Canadian manufacturers, to increase their output to such an extent that not only will domestic requirements be more completely met but the surplus for export be largely augmented. With the tremendous burden of the war and post-war debt on the nation's shoulders, there should be every incentive to convert an adverse into a favorable trade balance and thereby bring it about that the foreign buyer will become a contributor to the liquidation of our obligation.

Through the medium of house organs and bulletins, manufacturers might very well bring this situation to the attention of their workpeople. The Ford Motor Co. of Canada have done so very effectively in their *Ford News*, a "Trade in Canada" edition of which was recently issued. Not only did the company show how they were doing their part in buying every possible piece of material in Canada but they urged editorially the necessity for greater production.

"During the coming fiscal year," they stated, "the interest payable on Canada's Federal debt will be at least $115,000,000 and in addition, for many years to come, an annual charge of $30,000,000 to $40,000,000 will have to be provided for her soldiers and the dependents of those who have fallen. To meet these extra charges and at the same time provide for carrying on the ordinary administration of public affairs demands the whole energy of the people of the Dominion. An adverse balance of trade is a condition which it is imperative to guard against. Instead of importing, Canada must export. Her factories must run full time every week in the year; the farmer must continue to speed up his production; he is the backbone of Canada and must not fail her. The vast mineral resources of the Dominion must be exploited to the utmost and the unprofitable conflict between Capital and Labor must give way to a broad spirit of understanding and co-operation. The responsibility for the commercial success of the country rests with the individual man, woman and child. No matter how small or menial the task, its conscientious execution by the worker adds just that much to the total effort which must be made by the people to place the country on a sound and prosperous footing.

"Everyone must do his bit, and do it well. To sit back and rely upon the other fellow to do the work is to invite disaster. Each must bend his or her energy to the task in hand. Your success depends upon the prosperity of the country and vice versa the prosperity of the country depends upon your success. There is, and can be, no time or place for the slacker in the strenuous years that lie ahead. Set the good example yourself, individually. In the new era that is opening up men are getting to realize that they are indeed their brother's keeper and that the time has now come when each one is in duty bound to shoulder his due share of responsibility for the success of the community."

The Necessity for Greater Production.

PRODUCTION in Canada is falling off. It has been falling off for some time. There is no way of arriving at accurate statistics which would cover the situation all over the country. But it is a fact that the aggregate output of all the factories of Canada is considerably below normal. What are the reasons? They are difficult to define accurately, but it is certain that one fallacy at least is being disproved. That fallacy is the belief that factories as a general rule can produce as much in a forty-four hour week as they can in a fifty-four or sixty-hour week.

As a result of the eight-hour day law, passed in France early last spring, the national factory output of France has fallen in almost direct proportion to the percentage of reduction in working hours. During the past year there has been a considerable reduction in the gross working hours of Canadian factories, and now we know that there has been a corresponding reduction in output.

More serious still, the production per hour even of the actual existing working hours, is below normal. As a

result we are losing orders every day because we cannot deliver the goods.

There is also another very important point to be considered in regard to output. It is difficult to keep the quality of materials up to the old standard. Workers do not seem to be showing the same interest in trying to put their best efforts into their work as they showed some years ago. The result is that if production is falling and the quality of the output tends to deteriorate, and if these two conditions continue and increase, a serious economic situation will be created.

We are told also that agricultural production has fallen off. We have not the best facilities for investigating the truth of these rumors, and prefer to leave their verification either to the Government or to the associations which represent agriculturists. Government statistics usually appear a year or so after their collection. Consequently, they are not much use when conditions of the moment require to be analysed.

Since the Armistice, Canada has had the greatest trade opportunity in her history. It is doubtful if such another opportunity will occur. The situation has been unique. Highly industrialized Europe before the war produced practically all the manufactured goods it needed and exported in great quantities. Europe also supplies the greater part of its own agricultural needs. The war has changed all this. Europe wants all kinds of manufactured goods in great quantities. Europe also wants vast quantities of agricultural products. We can sell nearly everything we can send to Europe. What an opportunity! If we can supply this demand we shall lay the foundation for Canada's financial greatness. Money will come into the country in vast amounts and will be circulated here through all classes of the community. Is there any problem in Canada at the present time greater than the necessity of producing everything which the country can produce in the greatest possible quantities and of the very best quality for sale abroad?

Water Powers of B.C.

IN these days when the utilization of water-power in industry is becoming of steadily increasing importance and when knowledge of the resources of the Dominion in this particular must be regarded as of the utmost value, the work of the Conservation Commission in making a comprehensive survey of the whole situation merits the warmest commendation. This is apropos of the recent publication by the Commission of "Water Powers of British Columbia," a volume characterized by minute attention to detail and thoroughgoing study of the entire field. It is the work of Mr. Arthur V. White, consulting engineer for the Commission, assisted by Mr. Charles J. Vick, and extends to 644 pages of explanatory and statistical material, calculated to give any one interested in the subject the maximum of available information.

The undertaking of Mr. White and his associate is so broad in scope and intimate in detail that it would be impossible to give even a faint idea of the contents of the volume. Suffice it to say that there is no phase of the subject that has not received attention. To the manufacturer or promoter the value of the work will be found to lie in the very clearly arranged tables describing the water-powers of the province, giving their location, their head and their estimated horse-power. This, in addition to information regarding legislation passed by the province on the subject of water-power, will be of the utmost value to anyone desirous of investigating power possibilities in the coast province.

Newspapers and Democracy

THERE are many newspapers in Canada which are advocating what they call "democracy in industry."

A newspaper is a manufacturing plant organized in the same way as a factory is organized. We do not know of a single instance in which any newspaper has attempted to show in practice what it means by democracy in industry. We would like to see some of the great newspapers make the attempt, but up to the present time they prefer to give the advice and to let other manufacturers than themselves make the experiments.

Certain newspapers have also given very wide publicity to charges of alleged profiteering on the part of manufacturers. Yet we understand that certain newspapers in Canada have made good profits during the past five years, have paid very handsome dividends, and are, in fact, extremely successful manufacturing enterprises. The public would like to see some of these newspaper manufacturers demonstrate in their own plants the theories which they are advocating.

The United States Rejects the Peace Treaty

THE Senate of the United States, on November 19th, 1919, rejected the Peace Treaty of Versailles and the League of Nations Covenant. By this action the United States not only refused to accept the political principles involved, but they also rejected the labor clauses of the Peace Treaty.

It is difficult to see how the International Labor Conference, now sitting at its first session in Washington, can make international regulations in regard to labor if the United States is not to be included therein. If, for example, the countries which decide to remain in the League of Nations agree that a forty-eight hour week should be made international, the United States, which does not limit the hours of work in this manner, would immediately have an enormous advantage in international trade over the other countries who had voluntarily restricted their hours of labor, or, in other words, their production. Canada is particularly interested, as it would be difficult for us to compete with the United States under such conditions.

The First International Labor Conference

History of the Steps Leading Up to the Holding of the Conference—Draft Convention on the Eight-Hour Day—Position of the Canadian Employers on the Inportant Question Presented by Mr. S. R. Parsons

By J. T. STIRRETT

General Secretary, Canadian Manufacturers' Association

At the Plenary Sitting of the Peace Conference of the 11th April, 1919, the following Resolution was adopted:

> "That the Conference approves the Draft Convention creating a permanent organization for the promotion of the international regulation of labor conditions which has been submitted by the Labor Commission, with the amendments proposed by the British Delegation; instructs the Secretariat to request the Governments concerned to nominate forthwith their representatives on the Organizing Committee for the October Conference, and authorizes that Committee to proceed at once with its work."

It was decided to hold the first International Labor Conference in Washington, D.C., on October 29th, 1919. Each country was invited to send four delegates, two representing the Government, one representing employers and one representing labor.

The Organizing Committee, assembled under authority of the foregoing resolution in accordance with the provisions of Part XIII of the Peace Treaty, issued a circular and series of questionnaires dealing with the items of the agenda specified in the Treaty. The information contained in the replies to the questionnaire from the different Governments was analyzed and summarized by the Organizing Committee and presented in the form of reports to the International Labor Conference.

Owing to the fact that the United States had not ratified the Peace Treaty, no official delegates represented the United States at the Conference. The delegates from Canada were as follows:

(*a*) Government:
Hon. Gideon D. Robertson, Minister of Labor.
Hon. Newton W. Rowell, President of the Council.

(*b*) Employers:
Mr. S. R. Parsons, British American Oil Co., Ltd., Toronto.

(*c*) Labor:
Mr. P. M. Draper, Secretary of the Dominion Trades and Labor Congress, Ottawa.

When the Conference opened in Washington on October 29th, delegates were present from the following countries: Argentina, Belgium, Canada, Chile, China, Cuba, Czecho-Slovakia, Ecuador, France, Great Britain, Greece, Holland, India, Italy, Japan, Guatemala, Nicaragua, Norway, Paraguay, Peru, Portugal, Poland, Roumania, San Domingo, Siam, Spain, South Africa, Sweden, Switzerland, Uruguay and Venezuela.

The subjects on the agenda of the Conference were as follows:

1. Application of the principle of the eight hours' day or 48 hours' week.
2. The question of preventing or providing against unemployment.
3. Women's employment.
4. Employment of children.
5. Extension and application of the International Convention adopted at Berne in 1906 for the prohibition of the use of white phosphorus in the manufacture of matches.

Canada was principally concerned in the first two items of the above agenda.

The eight-hour day was one of the subjects discussed at the National Industrial Conference, Ottawa, September 15th-20th, 1919, and the following resolutions were passed and recorded by the three groups of delegates present:

Resolution submitted by the Employers' Group:

"Resolved that appropriate Government Commission, composed of an equal representation of employers and employees of the various industrial, producing and distributing industries, should be appointed to undertake investigations as to the adaptability of the hours of labor principles of the Peace Treaty to the different industries of the country, and to report as early as possible."

Resolution submitted by the Employees' Group:

"That we agree with the recommendations and findings of the Royal Commission on Industrial Relations, and urge the adoption of an eight-hour day by law throughout the Dominion, with due regard and recognition of the Saturday half-holiday, where same prevails and its possible extension.

"In industries subjected to seasonal and climatic conditions, such as farming, fishing and logging, if it can be established by investigation that the operation of such law is impracticable, then exemption shall be granted such industries from the operation of such law."

Resolution submitted by the Third Group (representing the public):

"We approve of the principle regarding employment and hours of labor set forth in the Treaty of Peace and in paragraphs 50 to 53 inclusive, of the Report of the Royal Commission, and would recommend that the Governments of Canada enact legislation providing for such in all industries where it is now established by agreement, at the earliest opportunity, and after due investigation by a Commission, composed of representatives of Employers and Employees representing the various industries, legislation be enacted by the Governments of Canada providing for the same to be extended in all industries where it can be applied, having due regard to the curtailment of production and distribution."

Mr. Parsons, the delegate representing the employers of Canada, announced early in the sessions of the Conference, that he would be guided by the resolution adopted by the employer delegates at the National Industrial Conference.

Draft Convention

The Organizing Committee of the International Labor Conference prepared a Draft Convention (agreement) to limit the hours of work in industrial undertakings to 48 hours in the week. The Committee suggested that this agreement should be brought into operation generally on July 1st, 1921. This draft agreement was submitted to the Conference, and after the views of Government, employers and Labor delegates had been stated, it was referred with various amending suggestions to a committee of fifteen. The Draft Agreement follows:

Draft of a Convention to Limit the Hours of Work in Industrial Undertakings to Forty-eight in the Week.

1. The present Convention applies to all industrial undertakings, other than undertakings in which only the members of the family are employed.

Industrial undertakings shall be deemed to include the following:—

(*a*) Mines and quarries.

(*b*) Industries in which articles are manufactured, altered, repaired, ornamented, finished or adapted for sale, or materials



The Tertium Quid

How the cartoonist of the "Knickerbocker Press" pictures the situation at the recent labor conference at Washington

are transformed (including the generation and transformation of electricity, shipbuilding, laundry work).

(*c*) Construction, reconstruction, maintenance, repair, alteration or demolition of any building, railway, tramway, harbor, dock, pier, canal, inland navigation, road, tunnel, bridge, viaduct, sewer, drain, well, telegraphic or telephonic installation, electrical undertaking, gas work, water work or other work of construction, and the preparation for and laying the foundations of any such work or building.

(*d*) The transport of passengers or goods by road or rail, including the handling of goods at docks, quays, wharves, and at warehouses, but excluding transport by hand.

The national law shall define the line of division which separates industry on the one side and commerce and agriculture on the other.

2. The working hours of employed persons shall not exceed 48 in the week, with the exceptions hereinafter provided; but the provisions of this Convention shall not apply to persons holding positions of supervision or management or employed in a confidential capacity who are not usually employed in manual labor. Where persons are employed in shifts, it shall be permissible to employ persons in excess of 48 hours in any week if the average number of working hours over a period of one month or less does not exceed 48.

3. The limit of 48 hours may be exceeded in case of accident, breakdown of machinery or plant, or other emergency, but so far only as may be necessary to avoid serious interference with the ordinary working of the undertaking.

4. The limit of 48 hours may be exceeded in those industries or processes which are required by reason of the nature of the industry or process to be carried on continuously by a succession of shifts, subject to the condition that the working hours shall not exceed 56 in the week on the average. The limitation of the hours of work shall not affect any holidays which may be secured to the workers in such industries by the national law in compensation for the weekly rest day.

The industries included in Schedule A shall be regarded as industries to which this Article applies.

5. The limit of 48 hours may be extended to 60 in the case of any of the classes of workers included in Schedule B.

6 (*a*). In industries in which the conditions specified in Schedule C exist, overtime for not more than 150 hours in the year may be worked, subject to the condition that a worker when employed overtime shall receive a rate of pay which shall be higher by at least 25 per cent. than his normal rate of pay.

(*b*) In other industries overtime for not more than 150 hours in the year during the next five years and afterwards for not more than 100 hours may be worked subject to the same conditions as in (*a*).

7. If any of the contracting States claims that any industry other than those specified in Schedules A, B or C carried on in its territory comes within any of the foregoing Articles, it shall notify the same to the Governing Body of the International Labor Office.

8. In order to facilitate the enforcement of the provisions of this Convention, every employer shall be required:—

(a) To notify by means of a notice posted in the works or other suitable place, or by such other method as may be approved by the Government, the times at which the employment of his workers commences and ends, or where work is carried on by shifts, the times at which the employment of each shift commences and ends. The times shall be so fixed as not to exceed the limits provided for under this Convention, and when notified shall not be changed except with such notice and in such manner as may be approved by the Government.

(b) To notify in the same way such rest times observed during the period of work as are not reckoned as part of the working hours.

(*c*) To keep a record in the form prescribed by the national law or order of the Executive Government of all additional hours worked in pursuance of Articles 3 and 6 of this Convention.

It shall be made an offence against the law to employ any person outside the times fixed in pursuance of paragraph (*a*) or during the times fixed in pursuance of paragraph (*b*).

9.* In those countries in which climatic conditions, the imperfect development of industrial organization or other special circumstances render the industrial efficiency of the workers substantially different, the following modifications of the provisions of this Convention may take effect:—

.....

10. The provisions of this Convention may be suspended in any country by order of the Government, in the event of war or other emergency endangering the national safety.

11. The provisions of this Convention shall be brought into force not later than the 1st July, 1921.

Schedule A.

1. (*a*) Industries in which work is necessarily carried on by all or the great majority of the workers night and day for seven days a week:—

(i) The extraction of metal from the ore, or the recovering of metal by blast furnaces or other processes, including blast furnaces, reverberatory furnaces, retorts, electric furnaces, electrolytic process and the preliminary process of calcining ores.

(ii) The manufacture of coke and recovery of coal by-products from coal.

* NOTE.—It will be necessary in accordance with Article 405 of the Treaty to consider the modifications necessary in the case of special countries, but as the replies of Japan, China, India and other countries had not been received when this report was drafted, the Committee have not yet been able to make any recommendations in regard to them. [Cf. p. 134].

(iii) The production and refining of mineral oil, including mineral oil from shale.

(iv) Public Utility services (gas, electricity, water).

(*b*) Branches of industry in which work is necessarily carried on night and day for seven days a week, but which constitute a portion only, and generally a small portion, of the work of the establishments in which they are carried on:—

(i) Continuous processes in the manufacture of chemicals, including synthetic dyes.

(ii) Sugar refining (char-house).

(iii) Manufacture of condensed milk (receiving department and vacuum pan, pasteurizing and cooling departments).

(iv) Cement manufacture (Schneider kiln and rotary kiln processes).

(v) Steel manufacture (smelting department).

(vi) Works of construction (tunnelling by compressed air, work of pump and engine attendants).

(vii) Salt works (work of lump men and wallers).

(viii) Glass manufacture (founders, teasers, casters, drawers, Lehr kiln-men and cave-men in sheet and plate works).

(ix) Mines (minding of pumps, fans, furnaces, winding).

(x) .....

(xi) .....

II. Industries in which work, though not carried on day and night, is necessarily carried on seven days a week, e.g., manufacture of milk products, other than condensed milk.

Schedule B.

Classes of work common to most industries which require to be exempted from the limit of 48 hours because of the special conditions of the employment:—

(i) Persons who have to come in before the normal hour for beginning work, or to remain after the day's work is over, e.g., boiler attendants, engine-men, electricians, oilers and greasers, cleaners, time-keepers and checkers.

(ii) Persons who have to come in early to prepare material, e.g., sponge makers in baking trade, moulders' laborers in foundries.

(iii) Works maintenance staff, whose duty is to carry out repairs.

(iv) Laboratory chemists and persons engaged in research work and testing work.

(v) Furnace men (including glass tank men and teasers), retort men, men employed on works gas plants.

(vi) Annealers engaged on continuous work (i.e., on work where the annealing takes several days to perform), and kilnmen, oven-men and stove-men.

(vii) Day and night watchmen, caretakers, pointsmen on works railways.

(viii) .....

(ix) .....

Schedule C.

(i) Industries liable to press of work at certain recurring seasons of the year, e.g., aerated water making, beer-bottling, printing and bookbinding, preparation of food, malting, manufacture of ice, seed cleaning and grading, making and repairing of

agricultural implements or machinery, manufacture of artificial manure.

(ii) Industries liable to sudden press of orders arising from unforeseen events, e.g., making-up of wearing apparel, job-dyeing and dry cleaning, biscuit making, warehouses in which goods are made up for shipping orders, packing-case making for shipping orders, farriers, ship-repairing, dock laboring.

(iii) Industries in which the article manufactured or material used is of a perishable nature, e.g., fish-curing, preserving of fruit, preserving of meat, manufacture of condensed milk, extraction of whale oil, manufacture of glue and gelatine.

(iv) Industries in which the time for the completion of the work or process cannot by reason of the nature thereof be accurately prescribed, e.g., bleaching and dyeing, tetxile printing, metal rolling mills and foundries, lead pipe making, copper refining, wire drawing, paper-mills, baking of bread or biscuits, tanneries, starch or cornflour works, vulcanizing of rubber, sheathing or covering of electric cables.

(v) Factories driven by water power only which are liable to be stopped by drought or flood.

(vi) .....

(vii) .....

Mr. Parsons' Address

On the subject of the 48-hour week and the proposed draft agreement submitted, Mr. Parsons, Delegate of Canadian Employers, made the following address to the Conference:

MR. PARSONS (Canada). Mr. President, being a member of the employers' delegation who could not see his way clear to subscribe to the declaration and the proposition brought into this house by Mr. Marjoribanks, representing the employers in general, I would like to have the opportunity of stating my reasons for not joining in that proposition and to make some general observations upon the question under discussion.

In the first place, it appears to me that those who were responsible for bringing forward the draft convention—which we have been giving consideration to—have brought forward something which they have tried to fit to all the nations of the earth represented, but hardly with success. It is as though they handed out a suit of readymade clothes to the different countries, irrespective of their size or of their conditions, and had tried to make the same fit. In our country, in the ready-made clothing industry, they have, in connection with each large concern, what they call, I understand, a butcher, whose business it is to try and make fit any ready-made garments that are put upon the customer. Now, it appears to me that in connection with this labor programme, of the eight-hour day in particular, that we need a butcher for each country in order to make the programme fit as submitted to us.

I submit, that the first consideration before us in this matter is the welfare of the workmen. And in that proposition I am sure I will carry the judgment of every delegate and of every adviser in this house. I have a firm belief in co-operative methods, and committees, and commissions—what you call perhaps in the old land, shop committees. I also believe in the weekly day of rest. I also believe in profit sharing. I believe in everything that can be done in every individual industry in order to further the interests of the worker. I believe that the day has come when we can all say with Charles Dickens, "When men and women seem by one consent to open their shut-up hearts freely and to think of people around them as if they really were fellow passengers to the grave and not another race of creatures bound on other journeys."

An International Question

I do not, therefore, object to this eight-hour day, per se. My objection comes from the fact that in the present world-wide conditions that we are not prepared for it and that we can not fit it to our individual country's economic system. The question of hours is particularly a national and international economic question. And let me say, Mr. Chairman, that looking at it in this regard, the governments of the countries concerned, the employers' delegates representing the different countries and the employees are all equally concerned in a proper, a just, and a satisfactory solution of this great question.

Let me repeat again that this question should not be considered by any one class of people in any one country or in all the countries of the world. It must be considered as a national—a great national question, to which each one of us must give his very best consideration. What is the condition of the world to-day? You will agree with me in saying that there has been physical and material devastation in all the war-worn countries of Europe; that there is a great shortage of man power in all the countries; that there is a lack of foodstuffs; that we have huge national obligations which must be considered and met. In a word, the countries of the world have mortgaged their futures, and to-day we ought to give consideration to the question as to how the mortgage will be paid, for it assuredly meets us on every hand. The world is not suffering to-day on account of long hours, my friends. The world is suffering to-day for lack of food and clothing.

If my information is correct, and I believe it to be, there are 100,000,000 people on the verge of starvation in the Old World to-day. Not one-third of all the industries of the Old World are producing at full efficiency. What situation does this reveal to us? Is it a time when we ought to be considering shorter hours, which, to my mind, necessarily mean lack of production?

What did we hear from our French delegate of the employers? That since the eight-hour day had been introduced in France there had been a corresponding falling off in production; that from 10 hours to 8 hours a day meant 20 per cent. of a reduction in production.

Will shorter hours make up this lack? What have we before us as a proposition in connection with the hours? The draft convention calling for a week of 48 hours; my friends of labor from Canada, and, I think, perhaps, some other countries, calling for a week of 44 hours; the miners of this country calling for a week of 30 hours.

Have you ever thought that if we are to have a maximum of hours of work that it might be also wise to have a minimum in consideration of the world's great need?

The country which I have the honor of representing as an employers' delegate at this convention, Canada, is one of the great food-producing countries of the world, like its great sister on the south. This North American Continent is the bread basket of the world. I noticed that in the speech of the Right Hon. Mr. Barnes the other day, in speaking of this draft convention, he specially emphasized the fact that agriculture was excluded. Now, my friends, what does it mean when we exclude agriculture in a country like Canada, and I should think—although I have no right to speak for this country—in a country like the United States?

It means this in Canada: We have to-day a shortage of man power on our farms; everywhere our farmers in our great agricultural stretches are crying out for more help, and they can't get it. And what is the consequence? A great loss of production and higher prices.

Cause of Profiteering

We talk about profiteering. Profiteering is only a symptom. There would be no profiteering if we had plenty of production the world over; but it is the shortage of production that is responsible for profiteering. And what do you do for the farmers when you try to bring in a short working-day in industry? You may say that you do not interfere with agriculture. Let us look at it a moment. You simply draw, as if by a magnet, the workers from the farms into our towns and cities because of the shorter hours, the high wages, and the lights and shades of city life.

Who will suffer on account of the shortage of foodstuffs provided by the farms because of the shorter hours drawing the workers into the towns and cities? In the first place, the workers themselves will be the first to suffer because of this shortage and the consequent higher prices. In the next place the farmers will suffer. How? Because their children—the boys and the girls—and the men and the women will be drawn to city life, meaning thus a smaller production and less profit. Then, again, the farmers are bound to suffer in another way: The shorter hours in city life, towns, in our industries, will



Sykes in Philadelphia Public Ledger

Samson

make dearer agricultural implements, dearer food and clothing that the farmer uses, and he is hit in both ways; in the first place, because he has not men enough to work his farm to produce what is necessary; and, in the second place, because all that he uses in manufactured articles is increased greatly in price. Not only that—I am speaking for my own country, and yet I believe it applies, as I have said, equally to this country and to other grain-growing countries of the world—if there is a shortage of foodstuffs in our agricultural districts in this North American Continent, the workers all over the world are bound to suffer. They are bound to suffer because of the shortage. They are bound to suffer because of the consequent higher prices. I ask you, therefore, if you consider that it would be sound economically, in the present situation and circumstances of the world, to create such a shortage as will surely be created by shortening working hours.

Objects to so Many Exceptions

Again, Mr. President and gentlemen, I object to this draft convention which has been presented to us on account of the fact that it contains so many exceptions of one kind and another, and as referring to one country and another, that it will cause great discontent among those who are thus excepted from its operation. Take again our own country of Canada, we have great seasonal occupations. For instance, the lumbering industry, which is one of our great industries from east to west, it is well known that you can only carry on the lumbering industry when you have the water to run the logs. In part of our country, as in some other countries who perhaps have not the lumbering industry as we have, we are frozen up for a number of months of the year, and therefore we must make hay while the sun shines. Also there is a great difference in climate in our wide stretching country—on the far west, British Columbia has a climate somewhat like Great Britain. On the east it is frozen up for four or five months of the year. You will see at once that the exceptions applying on account of our great differences of climate, and other factors, will mean that there will be so many industries and workers excepted, that those workers who are excepted will become utterly dissatisfied.

Those who have to work a larger number of hours than the proposed eight-hour day, if that should come into effect, will soon say, "We are not going to work longer than our friends who have the shorter period," and thus again you decrease production and cause dissatisfaction among the workers.

Unlike Great Britain, according to the statement of the Right Hon. Mr. Barnes, we did not promise our workers, either before the war or during the war, that their conditions of labor would be altered, that they would have shorter hours, or anything of that nature. Our workers in Canada put their backs into their work in the first place because they were loyal to the cause, and in the next place because they received higher wages than ever they secured before. In all honesty I am bound to say that some of them, especially working on piecework in the munitions, worked harder than they should have done because of these higher wages.

I know it may be said that at the present time there is no particular standard of hours, and therefore there are many exceptions to what may be called even a sort of a general rule as to working hours. But, at the present time it is recognized by all the workers that there are different hours which apply to different industries, and it is so understood. If we try to bring in what is called the universal eight-hour day, then we are faced almost at once by the necessity of extending that day and those hours of work to seasonal and other occupations, and that, to my mind, will be the cause of great dissatisfaction.

There is, however, another very serious objection, perhaps one of the most serious objections that can be brought forward against the legislation which is proposed in this draft convention. It is the attempt to deal by legislation with business matters. This is an economic problem, and I fear that if we try to settle it in our legislative halls in a political way, it will receive a political and not an economic answer. The more business interests of any country get into the hands of the government and politicians the more difficult it is to keep out influences which should never come between one class and another in any country.

Nine Different Solutions

In the case of Canada we have nine different Provinces dealing with the labor question. I understand the same is the case in the United States, where forty-eight legislatures deal with the labor question. You can therefore see how difficult it is to arrive at any agreement, when you consider the different interests of these different Provinces or States.

In my opinion an attempt to limit the hours of work will mean the deathblow to small industries and would prevent starting new ones. Let me explain what I mean. The great majority of employers, on this continent at all events, have come up from the ranks or have had next to nothing to start with. How have they succeeded in coming to their present positions in the industrial world? It has been by working long hours, or rather with no regard to hours; also by thrift, the practice of economy, ambition, and by accumulating savings. A man starts in a very modest way. Perhaps he would gather about him three or four or a dozen workers who are possibly interested with him in some way in the venture. He works long hours because he knows that he is up against large industries with great capital and ability to do what he could not possibly do. The only way that he can get a start is to work longer and to secure men who will work with him. In that way he gradually gets ahead and assumes a place in industrial life of which he may well be proud. That is the history, I venture to say, of nine-tenths of the employers on this continent. If it is true of individual employers, I submit that it is likewise true of the small and newer nations. It will be the larger nations, if we go into this universal eight-hour day, that will have the great benefit. They will have the benefit of raw materials. They will have the benefit of capital. They will have the benefit of transportation, and, therefore, they, like the great industrial corporations, will cut the melon. That is the way business tends, either individually or nationally, these days.

There is another reason why, as representing the employers of Canada, I can not agree to become one of the signers of this draft convention. It is that, along with our friends of the United States, we inhabit the North American Continent. These two countries have interests in common. Our industrial life is much the same. Our wages are about the same. Our social conditions are almost identical. We have similar aims and similar industrial aspirations.

The United States has not yet signed the treaty of peace. I do not know, and I suppose none of us knows, whether the United States will sign the treaty of peace, or if they do, whether the reservations which they may see fit to make will be of such a character that they will reserve to themselves certain matters regarding labor conditions, as well as other considerations. In other words, the uncertainty that there is in connection with this matter in the United States would make it suicidal for us, their small neighbor, in point of population, in the north, to agree to what they had not adhered to. We have eight or nine millions of a population. Our industries are young. They lack capital. We are struggling. We are alongside a magnificent country of one hundred and ten millions in population, with great industries and great wealth. It is quite easy to understand, therefore, that until the United States has spoken that Canada must keep silent.

In closing, I would say that in Canada in the month of September we held a great national conference at the seat of government, Ottawa. There was represented in that conference an equal number of representatives of employers, of employed, and of the Government and the public. The employers' delegates could not agree with the employees in connection with this proposition of the eight-hour day. We, therefore, as employers, sent forward our own resolution to the Government of Canada, asking that a commission be appointed who would give thorough study to this important subject, and that upon this commission there would be represented an equal number of employers and of employed. That question, therefore, so far as our country is concerned, we hope will be studied in the light of all the facts, so that there will be no hasty conclusion reached, otherwise we might arrive at a decision which might interfere with our country's development and well-being.

Hopes for Reduced Hours

Let me say that I know I am speaking for the employers of Canada, and I feel sure that I am speaking for all the employers represented in this conference, when I say that we hope that the day will come when by the introduction of machinery to a greater extent than at present, as well as labor-saving devices, that the hours of work may be greatly reduced from what they now are. Personally I will hail that day on behalf, let me say, of my fellow-workers—for I have worked all my life—and I would be glad, like others, of a little bit of respite from the long hours and toil of a lifetime. I don't believe that that time has arrived yet. My principal objection, therefore, is that, in view of the world's needs, we certainly should not consider shortening the hours of toil, and, therefore, to my mind, decreasing the production.

Social welfare for any or all classes of the people will never be attained by uneconomic regulations. It is utterly impossible. If any one class in a community obtains an unfair advantage the other classes must suffer, and we can not bring forward in any country of the world to-day any regulations which are not based on a proper economic footing and attain what we call social justice. The thing can not be done. The two things do not work together.

Let me just state that if we attempt this it is the surest way of wrecking our civilization, and we have the best civilization to-day that the world has ever brought forward. Let us take care of it and mend it here and there, but not attempt to destroy it.

I would like to read two or three words by Mr. W. A. Appleton, president International Federation of Trades Unions. Mr. Appleton points out that "Phrases and catch words are everywhere taking the place of production. Unless the world produces it can not live."

He says, "The State is often described as a ship. To-day the ship is on a lee shore and all hands must work at maximum speed if she is to be saved from utter wreck."

Gentlemen, let us face present conditions as honest men, whether representing our Governments, employers or employees, and work out this question in accordance with economic standards. (Applause).

Unemployment

It was evident that the Labour Delegates wanted to get an international arrangement by which some scheme of employment insurance would be put into force. Mr. Parsons, as the Delegate of the Employers of Canada, strongly opposed any such suggestion, on the ground that in a country such as Canada there was no legitimate reason for unemployment, except under very abnormal conditions which could be taken care of as they arose.

At the time of writing the International Labour Conference is still in session and final action has not been taken on any subject on the agenda.

News and Views of the Association

There will be found each month in this department a record of the various activities of the Canadian Manufacturers Association during the preceding month. The information is supplied to INDUSTRIAL CANADA officially, and all members of the Association are urged to acquire the habit of reading and checking over the contents of the department carefully in order to keep themselves posted on the work of the Association

Executive Council Meeting

The November meeting of the Executive Council was held on the afternoon of Thursday, November 27th, at the Prince George Hotel, Toronto, with the president of the Association, Mr. T. P. Howard, in the chair. There was a very full attendance of members, the following signing the roll:—Messrs. C. Howard Smith, W. H. Shapley, E. J. Davis, J. S. McKinnon, H. A. Telfer, S. J. Williams, E. Y. Chown, W. M. Gartshore, W. A. Richardson, E. G. Henderson, P. W. Ellis, T. A. Hollinrake, Jas. A. Riordan, J. S. A. Whealy, R. W. Leonard, E. H. Gurney, R. Thomson, J. F. M. Stewart, F. B. Stewart, Thos. Roden, H. M. Snyder, W. C. Coulter, C. A. Waterous, G. H. Douglas, Carl Riordon, G. C. Coppley. The meeting was one of unusual interest, several matters of vital importance to Canadian manufacturers being under consideration.

Annual Meeting, 1920

The President and General Manager, who were appointed a special committee to select the place and date of the next Annual Meeting of the Association, have reported to the Executive Committee that they have arranged to hold the meeting in Vancouver, B.C., on June 8 and 9, with the annual dinner at Victoria, B.C., on June 10. The detailed arrangements will be completed as soon as possible and in the meantime all members will be notified of the date and place so that they may make the necessary arrangements to attend.

December and January Meetings

The by-laws do not provide that a meeting of the Executive Council should be held in December and the question of holding another meeting before the end of the year came up for consideration at the November meeting of Council. It was decided that a meeting should be held sometime between the middle of the month and Christmas in Toronto. The January meeting will be held in Montreal on the regular date.

Membership Campaign

Reporting just prior to the membership campaign, which took place during the week, December 1 to 6, the Executive Committee stated that much preliminary work had been done. Some time ago lists of non-members had been supplied to the divisional secretaries. A personal letter from the President containing an appeal for each present member to get one new member during the coming year was mailed to the entire membership. A special letter enclosing pamphlets was mailed to all non-members on the list, announcing the membership campaign and setting forth reasons why they should join the Association. 9,000 reprints of the article on the Association's activities which appeared in the November number of INDUSTRIAL CANADA were struck off, and have either been distributed or are available for distribution. In addition to this, a small pamphlet setting forth the services of the Association, was printed to the extent of 9,000 copies. It is proposed to follow up the membership campaign with a steady campaign by personal solicitation, where possible, and by correspondence.

Tariff Board Urged

A strong deputation of members of the Executive Council waited on the Government at Ottawa on Tuesday, November 25, to urge the appointment of a permanent board of experts to advise the Government on questions of tariff. The deputation, which was headed by Mr. T. P. Howard, the president, was received by Sir George E. Foster, Hon. C. C. Ballantyne, Hon. J. A. Calder and Sir Henry Drayton. The manufacturers made it quite clear that the board should be simply advisory in character. They had no desire that it should usurp any of the functions of the Ministers or of Parliament. At the same time they felt that the Minister of Finance should have to assist him, a board of experts who would make a study of trade conditions and the best scientific means of adjusting or revising the tariff to meet any general or special conditions arising from time to time. The deputation further questioned the desirability of a sub-committee of the cabinet going through the country and conducting a tariff inquiry, on the ground that it might result in political agitation of a disturbing nature. It was made clear, however, by the Ministers present that the Government was committed to this policy. Altogether it was felt that a favorable impression had been created on the minds of the Ministers as a result of the argument advanced on the necessity for a permanent tariff board.

Commercial Intelligence Committee

A meeting of this Committee was held on Thursday, November 20. The following gentlemen, suggested by their respective divisions, were added to the Committee:—

L. W. Simms, T. S. Simms & Co., Limited, St. John, N.B.
R. B. Stewart, Maritime Bridge Co., Ltd., New Glasgow, N.S.
A. H. Brittain, Maritime Fish Corporation, Montreal, Que.
Jos. Daoust, Daoust, Lalonde & Co., Ltd., Montreal, Que.
Hugh Scully, Willys-Overland, Ltd., Toronto, Ont.

In reporting on their work to the Executive Council, the committee gives an outline of the recent services rendered. In addition to the usual volume of correspondence and numerous interviews given to satisfy inquiries, supervision was given to the circulation of the report of the Canadian Economic Commission to Siberia; the Government was provided with a complete set of the proofs of the new *Trade Index* and a separate list of all the

Assistance for Canadian Manufacturers Transacting Business in the United States

Canadian manufacturers who encounter difficulties when transacting business in the United States will find that the Canadian War Mission in Washington can in many instances render valuable assistance.

Offices of the Mission are located in the Munsey Building, Washington, D.C., and Mr. M. M. Mahoney, the Secretary, is constantly in touch with the various Departments of the United States Government, thus enabling him to intercede successfully in the interests of Canadian business houses.

Members desiring to take advantage of this service should communicate direct with Mr. Mahoney, outlining fully all facts in the case; or, if they desire, the Association will be glad to take the matter up on their behalf.

articles made in Canada for the first time within the last three years; the Censor and Statistics Bureau was supplied with list of manufacturers in Canada and through the facilities at its disposal for *Trade Index* work the committee were able to supply the Membership Committee with a complete non-members' list.

Appreciation of services of the Committee in getting foreign commercial reports has been exemplified by their increasing use. An opportunity has been presented to strengthen its work in this connection at small cost, and the Committee is strongly of the opinion that it should be taken advantage of. To this end it has recommended to the Executive Committee the expenditure of the nominal sum required.

The Committee has in the past gathered information as to the quantities and values of specific goods annually consumed in Canada for manufacturers who are seriously proposing to manufacture goods not previously made in Canada or not in sufficient quantity to supply the bulk of the domestic demand. The Committee was impressed with the importance of this beneficial work and recommended that it be continued to the limit of the facilities at their disposal.

Committee on Smoke By-Law

The effect of the present shortage of coal has acted adversely on many factories and industries. The Toronto Branch Executive has, accordingly, found it expedient to appoint a sub-committee consisting of Messrs. Ed. J. Freyseng and T. F. Monypenny, to co-operate with the Commissioner of Property of the City of Toronto in relation to alleged offences against the Smoke By-law. It was complained by the city authorities that, while a great many factories and industries are at present complying with the by-law, there are others that are making little or no attempt to live up to the regulations.

The sub-committee promptly arranged for a conference with Commissioner Chisholm and representatives of nine Toronto corporations, against which complaints had been made, with the result that all the cases have been postponed, *sine die*. The manufacturers intend, meantime, to adopt such remedies as may be practicable. It transpired that from thirty to forty prosecutions a year are instituted to compel the prevention of smoke, and fines imposed, but without perceptible improvement.

The Committee is giving consideration to the desirability of approaching the city authorities with a view to the rescission or modification of harassing invidious restrictions calculated to discourage industries from locating in this district.

New Branches in Ontario

As the result of intensive organization following upon the divisional organization, definite steps are now being taken to form new district branches in Kitchener, Peterboro, Galt and Windsor, and the Secretary is preparing an itinerary for the Head Office officials to visit these centres.

Bulk Sales Act

At the Conference of Commissioners on Uniformity of Legislation in Canada, held in Winnipeg, August 26th-29th, 1919, the draft of a model Bulk Sales Act was considered by a Committee which recommended that the principle of the draft be approved, and that the draft be recommitted to the Committee having the matter in charge for further consideration. The draft will be again presented for consideration at the next Annual Meeting of the Conference, and meantime, the Committee was authorized to submit the draft to all interested parties. Our Legislation Committee will give careful consideration to the draft and report to the Council.

Canadian Industries Exhibition

The Association is co-operating with the managers of the Canadian Industries Exhibition, Royal Agricultural Hall, London, England, on the recommendation of Mr. Lloyd Harris, Chairman of the Canadian Mission in London. A circular has been issued to all our members asking them to direct inquiries and applications for space to Mr. O. C. Pease, 41 Victoria St., Toronto, who is the representative for the exhibition authorities in Canada. Fuller particulars regarding the Exhibition appear elsewhere in this number.

Visit of British Empire Delegates

On the suggestion of the Association, the Canadian Government issued an invitation to the delegates from all the countries of the British Empire who are now attending the first International Labour Conference in Washington, to visit Canada at the conclusion of the Conference. The invitation was accepted and tentative arrangements were being made, but owing to the outbreak of the smallpox epidemic in Ontario, these arrangemetns were cancelled as the delegates decided not to come.

Canadian Association of Advertisers

Closer co-operation with the Canadian Manufacturers' Association is desired by the Association of Canadian Advertisers, who, at their annual meeting in Toronto, on November 20 and 21, appointed a special committee to work with the C.M.A. in all matters pertaining to advertising and marketing. Good service has already been rendered to this Association by the A.C.A., in giving expert advice on various advertising propositions which have come up from time to time, and it is the desire to extend this service. At the annual dinner of the A.C.A., held at the King Edward Hotel, Toronto, on the evening of November

20, the principal speaker was Mr. Lloyd Harris, who dealt with the work of the Canadian Mission in London. He was followed by Mr. H. Macdonald, secretary of the Ontario Division, C.M.A., who gave the company present a comprehensive account of what this Association is doing, through INDUSTRIAL CANADA, the *Canadian Trade Index* and other channels, to promote the interests of Canadian industry.

Certificates of Membership

The Executive Committee have decided that the large framed certificates of membership in this Association should be issued in the name of a firm only, and not in the name of the individual, and that these certificates should be signed by the President and the General Manager. They have arranged further that small pocket certificates should be printed and issued to individual members, and that these should be signed by the General Manager and General Secretary. They have also instructed that before a resignation is accepted all certificates of membership must be returned to the Head Office of the Association to be cancelled.

The Use of Canadian Goods

It has been brought to the attention of the Executive Committee that the employment of United States engineers and architects on construction work in this country is resulting in the increased use of articles manufactured in the United States in preference to articles manufactured in this country. The Committee have instructed that a circular be sent to all members of the Association, asking them to insist that Canadian goods be used in all construction work within their control, and also that the chief engineering firms, architects and others be communicated with and asked to specify Canadian material so far as possible.

British Excess Profits Tax

Certain Canadian manufacturers who are carrying on export trade with Great Britain and who have already been taxed under the Canadian Business Profits War Tax Act, have been called upon to pay taxes in Great Britain under the Excess Profits Duty in that country on business they have done there. The Executive Committee in its report to the Executive Council recommended that a strong deputation of those interested should interview the Dominion Government immediately and lay the case of these Canadian exporters before the Minister of Finance. This action was agreed upon by the Council.

Our Opportunities in China

Reporting to the head office from Vancouver, Hugh Dalton, Secretary of the Pacific Division, says:—"Trade Commissioners and others arriving in Vancouver from the Orient continue to emphasize the immense possibilities of the business to be done by Canadian manufacturers in Japan and China, but they invariably point out that Canadian manufacturers will only obtain their proper share of this business by following the example of the American manufacturers and sending their own representatives to the Orient. The Chinese Consul here, who has recently returned from spending five months in China, tells me that there is a vast number of representatives of American manufacturers now in China. He says that the Chinese, from long and satisfactory experience with British manufacturers, would prefer to do business with the latter, but on account of the present inability of British manufacturers to supply the wants of the Chinese market, they would like to do business with Canada in preference to the United States. If our manufacturers, however, do not go after the business, it will almost certainly go to the Americans. The Chinese Consul tells me that the Chinese boycott of Japanese goods and ships is growing rather than diminishing, which is an additional reason why our manufacturers should make greater efforts to get into the Chinese market, as that market is much larger and more satisfactory to deal with (as I think Captain Robert Dollar has already told you) than the Japanese market."

Cheap Power for Maritime Provinces

During the meeting of the Executive Council of the Association in St. John, N.B., on October 1st, and the subsequent trip of various members of the Association and Officials through the Maritime Provinces, one of the chief questions discussed was the problem of securing an adequate supply of cheap power for these Provinces. The interest of our Maritime Provinces' members was quickened by the descriptions furnished by Ontario members of the beneficient results to industry which had been obtained by the introduction and development of cheap power in Ontario.

At the meeting of the Maritime Division of the Association, held in Halifax on May 28th, 1919, the Governments of the Maritime Provinces were memorialized by resolution with the request that every effort should be made to investigate the possibilities of developing cheap power in the Maritime Provinces, and to offer every facility and encouragement to assist in such development. It was



The Magic Key

How the cartoonist of the London "World" pictures the labor situation

PETERBORO WON FIRST HONORS

The first city to report a One Hundred Per Cent. total in the big membership drive of December 1 to 6 was Peterboro, and the total was gained on the very first day of the campaign. With six new memberships secured, every one of the 32 manufacturing establishments of the city is now a member of the C.M.A. This fine achievement reflects great credit on the spirit of the Peterboro manufacturers, while special thanks are due to Messrs. W. R. Breyfoyle of the De Laval Co., and Edgar Worth of Canadian Woollens, Limited, for their leadership in the good work.

finally decided, on the request of Mr. R. H. MacKay of New Glasgow, one of our members, who is also a member of the Nova Scotia Power Commission, to ask the Executive Council of the Association to endorse the resolution which had been submitted by the Maritime Division to the Governments of Nova Scotia and New Brunswick on the subject of power. This was done at the October meeting of Council, and a copy of the resolution was forwarded to the Premiers of New Brunswick and Nova Scotia. A reply has been received from the Premier of New Brunswick stating that the subject is being considered and that legislation will probably be introduced during the coming Session bearing on the matter. A letter has also been received from Mr. MacKay on behalf of the Nova Scotia Power Commission, thanking the Association for its assistance.

Educational Industrial Films

A considerable quantity of information has been gathered by the Commercial Intelligence Department relating to the use of industrial films for educational purposes through moving picture houses in Canada and elsewhere. The Commercial Intelligence Committee at its last meeting discussed the subject of motion films and was of the opinion that a purely advertising film concerned only individual manufacturers, while the educational film from which all direct advertising has been deleted might be of interest to the sections or groups of the Association. Its recommendation is, therefore, that the Secretary convey the information at his disposal in a report to the groups and sections for their consideration.

The Exchange Situation

The attention of the Commercial Intelligence Committee has been called recently to the practice of some export houses and others insisting on payments from abroad being made in New York funds. It was pointed out that from both a business and patriotic point of view, there was much to be deplored in this practice. The Committee has accordingly advised the issuance of a circular to the membership pointing out the value of making quotations on the basis of Canadian exchange and accepting payment for goods in Canadian funds.

Conditional Sales Act

A Committee of the Conference on the Uniformity of Legislation in Canada, held in Winnipeg, on 26th-29th August last, reported that having considered section by section the draft of a model Conditional Sales Act, they recommend that the draft should be referred to the New Brunswick Commissioners with instructions to redraft the statute, and submit it to the Commissioners from the other provinces, and subsequently to report thereon to the Conference. One Legislation Committee will report on the subject.

Technical School Scholarships

One of the most valuable services rendered by members of the Toronto Branch C.M.A., is the giving of scholarships to pupils of the Central Technical School. Referring to these scholarships at the Annual Commencement of the school held on November 21, Dr. A. C. McKay, the principal, said that the special day courses have been well attended and that, as far as possible, the classes are divided to give definite practical instruction in the closely related industries. From both regular and special day classes, there is a constant stream of young people entering industrial life, with an ever-increasing equipment of mental culture and practical efficiency, the scholarships given by the manufacturers being a strong factor in helping the school to hold young people until they have secured an adequate preparation for life.

The evening classes have continued for some years to grow in numbers and indications point to an immediate demand on the school space and equipment, far in excess of what is at present available. The total enrolment in the Central Technical School, including 930 returned soldiers, now is 8.895. The following are the scholarships donated by members of the Toronto Branch C.M.A., to the Central Technical School in 1919:

Name of Donor.	Scholarships.	Amount.
Anthes Foundry, Ltd.	1	$25 00
Banfield, W. H. Sons. Ltd.	1	25 00
Beardmore Belting Co., Ltd.	1	25 00
Boeckh Co., Ltd.	1	25 00
Booth Coulter Copper & Brass Co., Ltd.	1	25 00
British American Oil Co., Ltd.	2	50 00
Brown Bros., Ltd.	1	25 00
Canadian, W. A. Rogers Co.	1	25 00
Christie Brown & Co., Ltd.	1	25 00
Clarke, A. R., & Co., Ltd.	1	25 00
Consumers Gas Co. of Toronto	1	25 00
Davies, Wm., Co., Ltd.	1	25 00
Dodge Mfg. Co., Ltd.	1	25 00
Dunlop Tire & Rubber Co., Ltd.	1	25 00
Eaton, T., Co., Ltd.	2	50 00
Ellis, John F.	1	25 00
Firstbrook Bros., Ltd.	1	25 00
Freyseng, Ed. J.	1	25 00
Goodyear Tire & Rubber Co., Ltd.	1	25 00
Gourlay, R. S.	1	25 00
Graves Bigwood Co.	1	25 00
Gurney Foundry Co., Ltd.	1	25 00
Gutta Percha & Rubber Ltd.	1	25 00
Hamilton Gear & Machine Co.	1	25 00
Hunter Rose Co.	1	25 00
Harris Abattoir Co., Ltd.	2	50 00
Imperial Oil Co., Ltd.	1	25 00
Imperial Varnish & Color Co., Ltd.	1	25 00
Inglis, John, Co., Ltd.	1	25 00
International Business Machines Co., Ltd.	1	25 00
Lever Bros., Ltd.	1	25 00
Laidlaw, R., Lumber Co., Ltd.	1	25 00
Lowndes Co., Ltd.	1	25 00
Massey-Harris Co., Ltd.	2	50 00
McGregor & McIntyre, Ltd.	1	25 00
Roden Bros., Ltd.	1	25 00
Rolph Clark Stone, Ltd.	1	25 00
Rous & Mann, Ltd.	1	25 00
Southam Press, Ltd.	1	25 00
Scythes & Co., Ltd.	1	25 00
Stauntons, Ltd.	1	25 00
Steel Co. of Canada, Ltd.	1	25 00
Toronto Carpet Mfg. Co., Ltd.	1	25 00
Toronto Hardware Mfg. Co.	1	25 00
Toronto Plate Glass Mfg. Co., Ltd.	1	25 00
Toronto Salt Works, Ltd.	1	25 00
Turnbull Elevator Mfg. Co., Ltd.	1	25 00
Warwick Bros. & Rutter, Ltd.	1	25 00
	52	$1,300 00

In addition a sum approximately $200 was distributed as prizes for students in the evening schools by the Toronto Branch C.M.A.

The Toronto Branch was represented at the Annual Commencement by George Brigden, Chairman Educational

Committee; J. S. McKinnon, First Vice-President; T. F. Monypenny; Ed. J. Freyseng and H. Macdonald, Secretary. The scholarships to the day classes were presented by Mr. Moneypenny and the prizes to the evening classes by James Richards, Chairman Advisory Industrial Committee, and George Brigden. Additional interest was lent to the occasion by the presence of Hon. R. H. Grant, the new Minister of Education of Ontario, who gave assurance of his sympathy and interest in everything that advanced the educational interests of the Province.

Australasian Markets

The Association has been recently in receipt of a communication from the New Zealand Loan and Mercantile Agency Co., Limited, with head office in London, England, relative to the establishment of trade relations between Canada and Australia and New Zealand. The company are prepared to discuss with Canadian manufacturers exclusive agency arrangements for any of the following commodities: Agricultural implements, binder twine, brushes, butter boxes, cement, confectionery, engines, fencing, roofing, household ranges, leather substitutes, pianos, pumps, tires and rubber goods, tools and waggons. The company was incorporated in 1894; they have a paid-up capital of ten million pounds, and operate twenty depots in Australia and ten in New Zealand, where they buy from and sell to the farmers.

Membership Campaign in Ontario

The Executive Committee of the Ontario Division at its last meeting appointed Mr. W. C. Coulter and the Secretary Mr. H. Macdonald, a Committee, to divide the province into districts or zones and arranged that a representative manufacturer in each such district should be requested to convene a meeting of all manufacturers who are members within each territory so that a local committee for the campaign might be organized with a district chairman and secretary.

It was also arranged that a circular should be mailed from the Head Office in sufficient time to reach all members, prior to December 1st, featuring the President's appeal at the Annual Meeting for each present member to secure one new member this year. Literature was also prepared and forwarded to all non-members to prepare them for the canvass.

Addresses Ontario Division

A most gratifying number of members of the Ontario Division turned out to hear Mr. Lloyd Harris, Chairman of the Canadian Mission in London, at a special luncheon held at the Prince George Hotel, Toronto, on Thursday, November 27, at 12.30 noon. The large banquet hall of the hotel was completely filled, over 250 being present, and in the gathering were a large number of out-of-town members. Mr. T. P. Howard presided and with him at the head table were the guest of honor, Mr. Lloyd Harris, and Messrs. J. S. McKinnon, George H. Douglas, C. Howard Smith, F. W. Stewart, Carl Riordon, Colonel R. W. Leonard, S. J. Williams, W. C. Coulter and J. E. Walsh. Mr. Harris spoke for upwards of an hour and held the close attention of the members throughout, as he gave a clear and comprehensive outline of Canada's foreign trade opportunities and the obligations resting on the country.

Activities of the Quebec Division in November

By. W P. HUGHES
Secretary, Quebec Division

DURING the month of November the Montreal office continued to be the rallying centre for a large number of Trade Section meetings. Several of the more active of these local bodies are meeting more or less regularly at definite intervals, and the tendency to establish this practice seems general in this locality. At least one of these groups meets in the office every week. It is a hopeful sign that manufacturers are learning to secure for themselves the benefits of such frequent conferences, and every encouragement is being given to this movement by the local organization.

The November meeting of the Executive Committee was held on Thursday, the 20th. At this meeting eight applications for membership were submitted, and plans concluded for the big membership drive during the first week of December. The eight applications thus recommended to the Central Executive for final approval, were as follows:

La Gerbe d'Or, Ltd., Terrebonne, Que.
The Victoriaville Furniture Co., Victoriaville, Que.
Victoria Hide & Skin Co., Victoriaville, Que.
Canada Broom Co., Montreal.
Casavant Freres (C. J. Laframboise, 2nd), St. Hyacinthe.
Phœnix Bridge & Iron Works (Wm. D'Oyley Hutchins, 2nd), Montreal.
Parker, Irwin, Ltd., Montreal.
Trudeau Carriage, Ltd., Montreal.

For the membership campaign in December the province has been organized and canvassers appointed. The three branch organizations within the province are made responsible for the territory within their jurisdiction. Prominent members have been written to in the various centres outside of the branch districts, and the ready response from these members to undertake the work of canvassing prospective members in their vicinity has been most gratifying.

In Montreal the city has been divided into five sections, and each of these will be canvassed by a team under the leadership of one of the members of the local Reception and Membership Committee. Reports will be collected in the local office each night and wired to the head office.

Arrangements have been made so that the campaign will receive widespread publicity throughout the province through the medium of the press.

Meetings have also been arranged at different points where a number of prospective members could be gathered together. Local members are enthusiastic for a hundred per cent. membership within the province, and the energy with which the campaign will be carried on will undoubtedly lead to most satisfactory results.

It was also decided at the meeting of the Executive to hold a general meeting of the Montreal Branch with an informal dinner on the evening of December 11th. The Reception Committee has been fortunate enough to secure Mr. E. W. Beatty, K.C., President of the Canadian Pacific Railway, to address the meeting, and one of the most profitable evenings which the members have ever enjoyed is looked forward to.

The Branch Executive gave its support, and appointed the Chairman, Lt.-Col. W. J. Sadler, as the branch representative

in connection with a movement to establish daylight saving for Montreal as a permanent factor each year. This movement has been started by the Canadian Club of Montreal, who have called for representatives to be appointed by the larger public bodies in this city, and it is expected that in the near future this joint committee will meet and formulate its plans for action.

Messrs. J. R. K. Bristol and S. B. Brown, the heads of the Tariff and Transportation Departments, respectively, visited the office on Wednesday, November 12th, and were able to bring the services of these departments to the direct problems of a considerable number of our branch members.

Messrs. S. B. Brown and G. P. Ruickbie of the Transportation Department, were again in Montreal on Thursday and Friday, the 27th and 28th instant, in connection with the meeting of the pulp and paper manufacturers, to study the question of freight rates on newsprint. Valuable information was collected on this subject which, it is understood, will be presented to the authorities in Ottawa in the near future.

On Tuesday, the 25th instant, a delegation, consisting of Mr. T. P. Howard, President of the Association; F. W. Stewart, Vice-Chairman of the Branch; Messrs. T. O'Reilly (Gillette Safety Razor Co. of Canada, Ltd.), B. W. Coghlin (B. J. Coghlin & Co.), K. W. Blackwell (Canadian Car & Foundry Co., Ltd.), Walter Ramsay (A. Ramsay & Son Co.), J. L. Waldie (Canadian Tube & Iron Co.), went to Ottawa, where they were joined by the members from Ontario in an interview with the Government, when the appointment of a Permanent Tariff Board was strongly urged. It is earnestly hoped by local members that their efforts were successful in persuading the Government to make this appointment, for it is felt that it is only in this way that the burning question of the tariff can be scientifically and satisfactorily settled.

Some fifteen members of the Executive Committee entertained at an informal luncheon in the Windsor Hotel on October 30th last Mr. Harrison Watson, Canadian Government Trade Commissioner in London, Eng. Mr. Watson has been in a position to secure much valuable information on the question of trade with the Mother Country, and the discussion which followed the luncheon was greatly appreciated by the local members.

The Work of Canada's Trade Commissioners

By J. M. McINTOSH
Manager, Trade Sections Department, C.M.A.

IT was a wise step on the part of the Department of Trade and Commerce to recall the Trade Commissioners from abroad as soon as practicable following the cessation of hostilities, so that they might take stock of new developments in Canadian industry and that our manufacturers might profit from the exchange of information in respect to the markets in which the services represent.

The Commissioners who have been in Canada this year are: J. W. Ross, China; B. S. Webb, Argentine Republic; D. H. Ross, Australia; W. J. Egan, South Africa; W. A. Beddoe, New Zealand; G. B. Johnson, Brazil; Harrison Watson, United Kingdom; J. E. Ray, Manchester, Eng.; Phillippe Roy, France; and Hon. Raymond Hubbard, Siberia.

In order that we may link these Commissioners with the development in trade between Canada and the countries in which they are located, the exports of Canadian produce in the fiscal years ending March 31st 1914 and 1919 are produced below:

	Exports.	
	1914	1919
United Kingdom	$222,300,000	$532,900,000
Australia	4,700,000	14,000,000
New Zealand	1,900,000	6,200,000
South Africa	3,800,000	12,000,000
Argentine Republic	2,100,000	4,600,000
Brazil	800,000	4,000,000
China	500,000	2,900,000
Russia	1,400,000	6,200,000
France	3,800,000	96,100,000
	$241,300,000	$678,900,000

It will be observed that there are enormous increases and in respect to this development the Commissioners have played a very important part. While in some cases these increases are in part due, undoubtedly, to war business, in the case of the United Kingdom, New Zealand, Argentine Republic and Russia, figures for the six months subsequent to March 31st indicate a still further improvement. This signifies that the impetus which our trade has gained through war business is likely to continue. Australia, South Africa, Brazil, China, and France, show a slight falling off.

The Association's facilities at all Branches have been placed unreservedly at the disposal of and have been taken advantage by practically all these Commissioners. With the exception of the Commissioners from Brazil, Manchester, France, and Siberia, they have toured the country from coast to coast. Meetings in some cases have been arranged and explanatory addresses given, but the most fruitful results have been attained from personal interviews. Our members within convenient reach have been notified, interviews arranged, and plants visited. It may be said, due to the nature of the export business, that probably the greatest interest on the part of our members was evinced in the South American, Australian, New Zealand, and South African fields. Messrs. Webb, Egan, and D. H. Ross spent about one month each in Toronto and Montreal, the other Commissioners being able to cover the ground in less time. They made proportionately shorter visits in Amherst, Hamilton, Winnipeg, and Vancouver, where our Secretaries were instrumental in placing them in touch with members. In addition to this they visited many of the smaller cities.

Visits have been Opportune

Having regard to the importance of developing trade abroad, the visits of these Commissioners have been particularly opportune. The publicity gained and interest aroused have fitted in most admirably with the growing desire upon the part of members for foreign outlets and from these visits it is quite safe to say that a very large amount of new business will be developed.

The Commissioners are a unit in stating that direct representation is absolutely essential. It is quite impracticable to expect to develop business by correspondence when so much time is lost in the transmission of the mails and too many misunderstandings are likely to arise. Such a method serves rather to prejudice business than to develop it.

Emphasis was laid upon the necessity for consistent support of all agencies appointed. Export trade should not be

considered as a stop-gap to take care of periods of depression in the home market. Failure to keep up a continuity of supply embarrasses the agent and discredits the exporter. All the Commissioners were agreed that the inauguration of preferential treatment by the United Kingdom would reflect itself in the development of Empire trade. South African markets, in which Japan has hitherto enjoyed a large trade, are now showing a prejudice against Japanese goods and agents of Japanese firms are trying to unload, and are taking on British connections instead.

Object to American Connections

The Commissioners from the Southern Dominions are most emphatic in their objection to Canadian factories attempting to deal through American connections. While the United States enjoys large trade in these markets there are many buyers who prefer to deal with Canadian houses. The imperial sentiment thus manifested is not encouraged, while inquiries addressed to Canadian houses are answered through head offices in the United States or by United States exporting agencies.

With particular reference to South Africa, Australia, and New Zealand, it should be borne in mind that, as Commissioners are the only official Canadian representatives there, their offices become to some extent somewhat diplomatic and in consequence much depends upon the relationships which they may develop with the members of the Governments and other public officials. These relationships may have important results in respect to the further extension of preferential treatment and the improvement of transportation conditions.

The Commissioners are in a particularly good position to procure confidential information in respect to the business integrity and financial capacity of agents and importers in their territories and Canadian exporters are well advised in consulting them and keeping in constant touch with them.

The Commissioners have all expressed themselves as particularly well pleased with the facilities placed at their disposal by our Secretaries and the attention paid to them.

Mr. Dalton, the Secretary of the Pacific Division, whose report upon the Commissioners' visits is most complete, brings up a matter of immediate and pressing interest to the shippers at the coast; i.e., the establishment of a better steamship service between Vancouver and South Africa on the one hand and Australia and New Zealand on the other. These matters have been the subject of discussion between Mr. Dalton and Messrs. Egan, Rose and Beddoe, so that with the work they may do upon return to their own territories the object sought may be more rapidly advanced. Mr. Dalton's report upon this phase is of such importance that it is reproduced herewith.

In conclusion the opinion is expressed in respect to those of the staff who have come in contact with the Commissioners of a wholesome regard for their business ability and the importance of the service they are in a position to render has been firmly established. In respect to those of our members who have met them, much information of value has been exchanged and in many cases arrangements for representation effected. In respect to the Commissioners themselves they have seen the development in the capacity of our plants during the years since they were last here and are able to go back to their posts and advance our interests with a confidence that is borne of a close and intimate personal touch.

Extract from the Report of Mr. Dalton

In regard to trade with South Africa, there is a vast field in that country for the manufacturers of this Province, but very little can be accomplished in that direction until we have a direct steamer service from this coast to South African ports. The general run of manufactured articles which could be exported to South Africa must now be shipped by rail to the Atlantic seaboard, and thence by steamer, and no commodities, such as knitted goods or boots and shoes, which we make here and for which there is a demand in South Africa, can stand a rail charge of $4 or $5 per 100-lbs. and hope to compete with Eastern Canadian or American manufactures.

Large quantities of box shooks are now being shipped from this Province to South Africa via Southern American Atlantic ports, but a much larger business could be done were there a direct line of steamers from here. British Columbia lumber has been sold for a great many years in South Africa, but only in cargo lots, but a much greater volume of lumber will move from here to that country when we have direct steamship service, and manufacturers are consequently able to ship in less-than-cargo quantities.

Two of the officials of the Canadian Mercantile Marine are now on this coast, and from interviews with them it is reasonable to expect that we will before many months have the desired steamship service. The principal obstacle to the establishment of this service is the lack of return cargo from South Africa to this coast, but this is a matter which Mr. Egan has in hand, and he is going thoroughly into the same immediately on his return to Cape Town, and I am optimistic that this difficulty will be overcome.

Preference for Australia

In regard to trade with Australia and New Zealand, there is already, as you know, a very large volume of business being done between Canadian ports and those countries, particularly with New Zealand. Canada enjoys a trade preference in both South Africa and New Zealand, and negotiations are now under way for the establishment of a similar preference in Australia. Such a preference would be of direct benefit to Canadian manufacturers in meeting American competition in Australia.

The Canadian Mercantile Marine officials referred to above have announced definitely their intention of placing four 8,100 ton steamers on the route between here and Australia and New Zealand, which will give us a monthly service, commencing in January. Up to the present, there has been but one line of steamers from British Columbia ports to Australasia, viz, that operated by the Union Steamship Company of New Zealand, and these steamers are heavily subsidized by the New Zealand Government, on the understanding that preference would be given to New Zealand shipments, both inwards and outwards. This arrangement means that it is not always easy for those interested in making shipments to or from Australia to secure space. There is every reason to believe that the establishment of the Canadian Mercantile Marine steamers on this route will alter this condition.

Messrs. Beddoe and Ross have taken the keenest interest in the establishment of this Canadian line of steamers as the additional tonnage this will give to their territories will naturally greatly facilitate their efforts to establish Canadian products in Australia and New Zealand.

A cleaning house, 50 x 50 feet, with a capacity of 2,000 bushels of flaxseed per hour, is being erected by the Dominion Linseed Oil Co., St. Boniface, Man. In connection with the cleaning house there is a warehouse and track shed. The cleaning house is being erected to separate wheat and oats from the flaxseed. The whole mill has a capacity of 50 barrels per day of linseed oil, besides oil cake.

Advertising Canada in Motion Pictures

The Story of How the Exhibits and Publicity Bureau of the Department of Trade and Commerce, Ottawa, is Spreading Broadcast Throughout the World by Means of Motion Picture Films, the Gospel of Canada

By RAYMOND S. PECK

Editor of Films, Department of Trade and Commerce, Ottawa

FEW people in Canada realize to what extent motion pictures are being used by the Federal Government to advertise the Dominion, and spread Canadian publicity broadcast throughout the entire world. Therefore a resumé of what the Exhibits and Publicity Bureau of the Department of Trade and Commerce, Ottawa, has done, and is doing, will, perhaps, come as a pleasant surprise to many prominent Canadian manufacturers and business-men.

This bureau was established in January, 1917, and since that time has grown with amazing rapidity. The bureau now occupies the entire Arnold Building at Kent and Wellington Streets, Ottawa. Here will be found commercial exhibits, purchased by the various trade commissioners, covering products which are imported into the countries in sufficient quantities to warrant the investigation of the trade by Canadian manufacturers.

A Finely Equipped Laboratory

However, the greatest and most amazing growth of this new Government Bureau has taken place in that section of the work given over to the production of motion pictures. Here will be found the finest equipped motion picture laboratory in Canada. The most modern equipment and methods are used in the manufacturing of film, with the result that a new standard has been set by this bureau for motion picture production in Canada. When moving picture scenics, industrials and educationals, were being made of such high excellence, it was not long before they attracted the attention of prominent American and Canadian film executives, anxious to secure these series of pictures and exploit them in the moving picture theatres of America on a percentage basis. Ont by one various contracts for the distribution of this series were made, until to-day these Canadian Government films enjoy a world-wide circulation.

In Canada these Government films are shown from coast to coast through the film exchange system operated by the Canadian Universal Film Co., Limited. Invariably they secure "first run" in the best theatres in the leading Canadian cities. In the United States they are shown throughout the length and breadth of the great Republic through the Goldwyn Picture Corporation, and the First National Exhibitors' Circuit, two of the dominating film exchange systems of that country. A contract has also been recently closed by the Government, with Sir William Jury, one of Britain's leading theatrical magnates, whereby he secures the British and European exhibiting rights for these Canadian scenics, industrials, and educationals. Arrangements have also been effected whereby the pictures will be shown regularly in the representative theatres of Australia, New Zealand, South Africa, and other foreign countries where Canada has trade commissioner representation.



A snappy scene from the film, "Wooden Shipbuilding in Canada," showing logs striking the water at the foot of a chute

Circulation Girdles the Globe

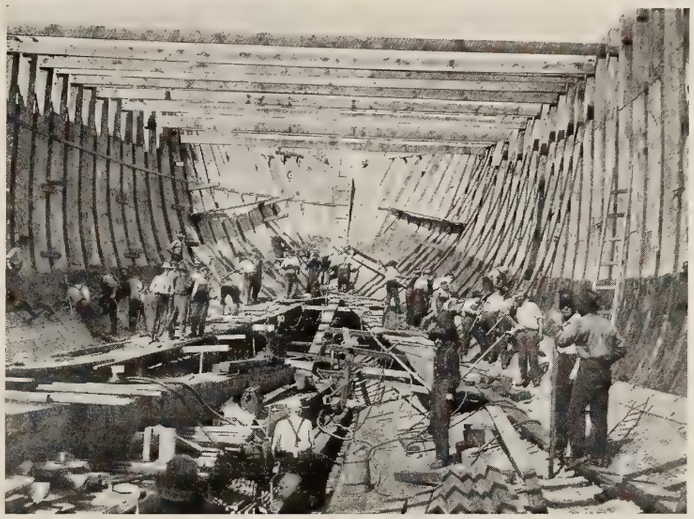
It can be readily understood from these facts concerning distribution of these films, that the circulation is world-wide and girdles the globe! And this tremendous circulation is not spasmodic. Every other week the Exhibits and Publicity Bureau sets into circulation one complete reel. Thus, by means of this bi-monthly release schedule, there is a steady and ever-increasing flow of Canadian propaganda being sown broadcast throughout the globe. The motion picture speaks a universal language. Truly Babel crumbles before the motion picture screen! The motion picture has rightly been termed the World's University, and one prominent British statesman has called the screen "the blackboard of the future."

Some conception of the tremendous growth of the motion picture interests can be grasped, when it is stated—and truthfully so—that it is now America's Fifth Industry! Lloyd George has said of the film industry: "I desire to express to the film industry of Britain my sincere appreciation of their effort to help the Government during the war. Your theatres are not only recognized places for the amusement of the people, but the film is a powerful force for the education of the people to a rational, happy and peaceful mode of living and working." Recently the Exhibits and Publicity Bureau produced a reel of film which was titled "Peace Hath Her Victories," and dealt with Victory Year at the World's Greatest Annual Fair —the Canadian National Exhibition. The subject was treated as a national achievement that Canadians could well be proud of. This film is now being shown throughout Canada, and a copy has already been sent overseas to Sir William Jury's film company for British and European distribution, while the United States will soon have its copy! Thus the message of Canadianism is carried throughout the entire world.

Probably the outstanding feature of this series of "Seeing Canada" reels, from a film executive's viewpoint, is the high grade of workmanship and artistry achieved and maintained. Competent film critics have

stated that these films can be classed with the finest of similar film products being produced anywhere. An American who occupies a responsible executive position in the Canadian film area pronounced the "Algonquin Park" picture—a recent mid-summer release, the finest scenic he had ever seen, and was anxious to play it again in his theatre in Toronto—which is a precedent for a one-reel scenic film!

It is largely through the high standard of production that the bureau has been able to get such tremendous circulation, because film men have had no difficulty in merchandising the product to the exhibitors or owners of theatres, both here and abroad, at a good rental figure.



Another scene from the film "Wooden Shipbuilding in Canada," showing small army of workmen in hull of a ship

Another phase of the work of the bureau is the showing of these pictures from time to time, before gatherings in schools, churches, community centres, rotary and kindred organizations and boards of trade and other civic bodies. A lecturer is constantly employed by the bureau in this work, with Canada as his "stamping ground." A prominent Canadian business man, who is the executive head of a large organization said: "I was a Four-Minute Man during the bond campaigns, and in that experience I discovered the wonderful power that films have for visual instruction—something which I had always under-estimated!"

The purely amusement end of the film business had reached powerful proportions. I firmly believe the next great development in this Fifth Industry will be along commercial and educational lines. Already the movement in that direction has set in, in a manner that is most pronounced. The certain demand for films for non-theatrical purposes is growing larger every day, and the market is very barren of good material to meet that demand. The demand comes from churches, schools, associations, institutions, and industrial organizations, not alone in Canada, but throughout the world. The Dominion of Canada has most certainly taken a prominent lead in this work, through its Exhibits and Publicity Bureau of the Department of Trade and Commerce. In days gone by tons of immigration literature and propaganda in all forms have been scattered over the Seven Seas—but now the narrow strip of celluloid film, barely more than an inch wide, is winding itself round and round this old globe of ours, and tightening its hold more than ever on the great masses of the world's inhabitants. Canada is taking a prominent part in getting a strangle-hold on the world's attention by means of motion pictures!

Progress Towards Uniformity of Legislation

By H. MACDONALD

Secretary, Legal Department, Canadian Manufacturers' Association

IT has long been generally recognized that the independent action of the various provincial legislatures has resulted in a diversity of legislation which, especially with regard to commercial law, raises a serious obstacle to commercial intercourse between the different parts of the Dominion, and is a source of embarrassment to British and foreign merchants doing business in Canada. In the United States, where a similar, but perhaps more complicated situation exists, work of great value has been done by the "National Conference of Commissioners on Uniform State Laws." For the past twenty-eight years, these commissioners have met annually and have drafted various uniform statutes and the subsequent adoption by many of the state legislatures of these statutes has secured a substantial measure of uniformity on various subjects.

The obvious benefits resulting from the meetings of the state commissioners in the United States suggested the advisability of similar action being taken in Canada, and on the recommendation of the Council of the Canadian Bar Association, several of the provinces passed statutes providing for the appointment of commissioners to attend a conference of commissioners from the different provinces, for the purpose of promoting uniformity of legislation in the provinces. The Canadian Manufacturers Association has long evinced a deep interest in the subject of uniformity of provincial laws and has kept in close touch with the work of the commissioners, with a view, as far as possible, to submit practical suggestions from time to time, which would not only be of assistance to the commissioners but of special benefit to Canadian manufacturers.

The first meeting of the commissioners appointed under these statutes and of representatives from those provinces in which no provision has been made for the formal appointment of commissioners, took place in Montreal on the 2nd day of September, 1918, and at this meeting the "Conference of Commissioners on Uniformity of Legislation in Canada" was organized. Although the work of the commissioners at their first meeting was necessarily of a tentative and preliminary character, provision was made for the consideration of various subjects by committees during the ensuing year.

The second annual meeting of the conference took place in Winnipeg on the 26-29th August, 1919. Several sessions were devoted to the consideration of drafts of model statutes, relating, *inter alia*, to the following subjects: Bulk sales, conditional sales, fire insurance policies. The conference also considered and adopted the report of its committees on the following subjects: Legislative drafting, sales of goods, and partnership.

The English Sale of Goods Act, 1893, has been adopted in New Brunswick and Prince Edward Island as a result of the first meeting of the conference. This statute is now in

Value of the Canadian Industries Exhibition

First Time an Exhibition Confined to the Products of One of the Overseas Dominions Has Ever Been Held in England—Canada's Future in World Markets Depends Upon the Energy and Enterprise of Her Manufacturers

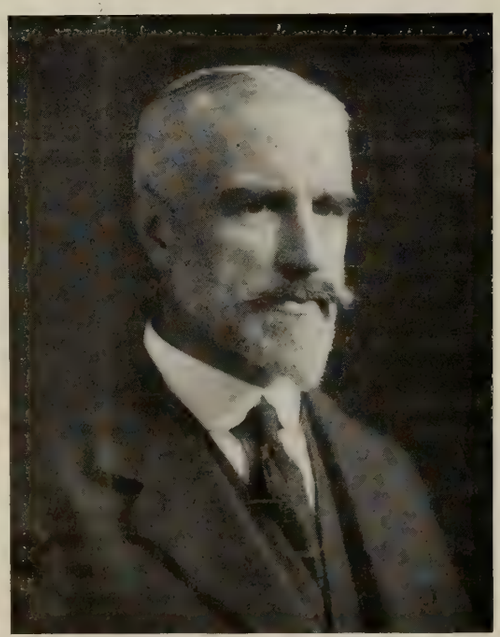
By J. M. McINTOSH
Manager, Trade Sections Department, C.M.A.

LLOYD HARRIS says that the greatest thing he did in London was to discover the British Empire and, when he said that, he was not talking in geographical terms but in terms of trade. Everybody knows that the red patches on the world's map are the measure of the Empire's extent, but we are only commencing to learn what they buy and sell.

Canada's place in the Empire trade will depend upon the enterprise and boldness of its traders. Opportunity is knocking at our doors. Everything we have offered for sale abroad has been snapped up and answered with demands for more. Canadians seem to be suffering from an overdose of being surprised at themselves. The fighting ability of Canadians has been proven, but nobody would have believed that we could raise, equip, transport, and maintain an army of half a million until we did it. Nobody would have thought we could manufacture war supplies in tremendous volume until we did it. When the Finance Minister asked us for a loan which we thought would tax us fairly heavily, we came through with twice the amount. Having done these few odd things, what is now left for us to do is to get busy and complete the job by producing in proportion to the markets of the world, which are open to us.

Mr. Harris has told us plainly that millions of dollars worth of business might have accrued to Canada had we been on the spot with our salesmanship and samples. The only way to get business is to go out after it, and if we do not go after it there are others who will.

Mr. Harris has covered his missionary work with a boldness and enterprise which should be characteristic of every Canadian manufacturer. If we indicate that same spirit, results will follow which will make us still further surprised at ourselves.



Mr. H. G. Montgomery
Promoter of the Canadian Industries Exhibition, London

Were this not coupled up with something practical it might be considered as so much hot air, but the practical part of what we are getting at is to impress upon our manufacturers the value of the Canadian Industries Exhibition in London, England, next June, as a medium for meeting British buyers and distributors to all parts of the Empire.

The Royal Agricultural Hall is one of the largest exhibition buildings in London, and is situated in the heart of the city. It is principally used for exhibition purposes, and the path to it is well worn by buyers of all classes of goods. Mr. Greville Montgomery, whom Mr. Harris has introduced to the Association, is well known as a former member of the British House of Commons, and as the promoter of the biggest exhibitions now controlled by any public company. The Building Trades Exhibition, held biennially, is the largest trades exhibition in the world, and is visited by interested persons from all parts of the British Isles. He is also responsible for the Mining Exhibition, Textile Machinery Exhibition, and Rubber Trades Exhibition. The business which these shows develop would make you dizzy.

The Exhibition will be advertised throughout the United Kingdom in trade and daily papers, the use of posters on hoardings and in railway stations. The fact that this will be the first time that an exhibition confined to the products of one of the overseas Dominions has ever been held in England will insure a large attendance.

If Canadian manufacturers will invest a few hundred dollars and go there with their samples, set them up attractively place them in charge of their nicest salesmen, and follow up everything that looks like business, we won't be worrying very long about adverse trade balances.

Great Britain, the clearing house of the Empire, if not at present of the world, has at last committed herself to Imperial Preference. Canada has had the latch string hanging out for years, but it took the rude jolt of war and post-war conditions to bring the Mother Country into line. It will, however, avail nothing if we do not go to her and show that we can supply her wants. Having just borne the brunt of the European mix-up, she may at present be a little short of cash, but her promises to pay are gilt-edged.

Large scale production is the most potent competitive factor which Canadian manufacturers have to meet. If the cultivation of our home market does not provide an outlet sufficiently large to enable us to produce on a scale which will put us on an even keel with our competitors, it is obvious that we must cultivate other markets that will, else we may lose out in our home market the most valuable of all. There is nothing to be gained from watching the movements of competitors and following in the swim. Trade may follow natural channels, but when you come to analyze the channels you will invariably find that a good deal of digging deflected the course in the direction of those countries where traders were bold, enterprising, and far-sighted. Our industrial history has never yet presented such splendid opportunities. Our future in the world's markets places upon our manufacturers of to-day demands which cannot be met by limiting our capacity and vision to home market needs.

Canada's Industrial Expansion

A Record of Progress

NOVEMBER'S story of industrial growth proceeding in all parts of the Dominion is duplicated and made all the more emphatic by the record for December. Again there is the same account of new industries being established, existing industries being extended and new products being produced. The movement is quite general and apparently is not confined to any special lines of industry. It bespeaks a confidence in the industrial outlook, which will go a long way towards stabilizing business conditions.

Established Branch Plant

The Eclipse Rubber Co., Limited, Are Now Manufacturing Waterproofs in Victoriaville, P.Q.

A branch plant of the Eclipse Rubber Co., Limited, Montreal, has recently been located in Victoriaville, P.Q. They have rented a building for the purpose and now have about 65 employees, manufacturing waterproofs. The industry is progressing satisfactorily and the management are well satisfied with conditions as they are to date. They propose later to enlarge the plant.

Furriers Erect Building

Seven-Storey Structure Going Up in Montreal for Holt Renfrew & Co., Limited

A seven-storey building is being erected on McGill College Avenue, Montreal, by Holt, Renfrew & Co., Limited, the main purpose of which is to provide the most efficient fur storage. The building throughout will be a model of modern fur handling and is designed to improve the company's service in Montreal. It will be connected by bridge with the present retail store on St. Catherine Street and will contain all packing and shipping rooms, offices, cold storage room, factory and skin rooms, employees' dining rooms, etc.

Double Output of Tires

Oak Tire & Rubber Co., Limited, Have in Prospect Doubling Capacity of their Plant

The programme of the Oak Tire & Rubber Co., Limited, Oakville, manufacturers of "Royal Oak" tires, calls for the enlargement of their factory next spring by the addition of another storey, size 200 x 60 feet, which will enable them to double their present output. At the present time additional machinery is being installed to take care of the increasing demand for their product. About 90 hands are now on the payroll, and since April last the plant has been running 23 hours a day. An effort is being made to secure a portion of the export business in tires.

Enlarging Brewing Plant

British American Brewing Co., Limited, Are Building New Bottling Shop at Windsor

The British American Brewing Co., Limited, Windsor, who manufacture "Cincinnati Cream" beer, are at present carrying out a programme of enlargement which will increase their capacity considerably. They are erecting a new bottling shop, 140 x 70 feet, which will be equipped with the latest machinery at an approximate cost of about $75,000. They are also enlarging their present stock house and increasing its capacity by 5,000 barrels, equipping it entirely with glass-lined steel tanks. A new office is also being laid out in the second floor of the bottling shop. They state that business is very good and the addition will about double their capacity.

Lumber Co. Change

American Interests Take Over Mills and Limits of the Finger Lumber Co.

What is characterized as the biggest deal in the history of the lumber industry in Manitoba was the recent sale for approximately $1,500,000 of the lumber mills and timber limits of the Finger Lumber Co. of the Pas to C. J. and D. N. Winton, of Minneapolis. The Finger Lumber Co. was established in 1912 and has been in active operation since with an average production of 190,000 feet per day. The limits consist of 324 square miles. Mr. H. Finger, who established the company, has been a resident of the Pas since 1904 and for several years was mayor of the town.

Move Factory to Woodstock

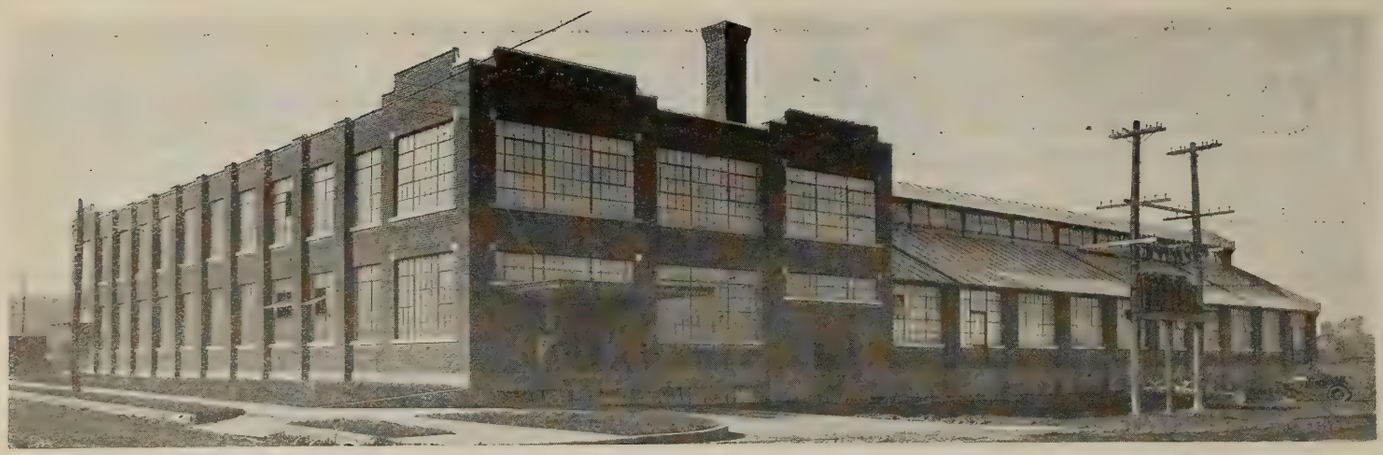
Manufacturers of Sunkist Orange Marmalade Take Over Factory at Woodstock

The California Fruit Growers Exchange have removed their manufacturing plant from Toronto to Woodstock, where they have taken over the Tobin Arms building and are operating it under the name of the Exchange Orange Products Co. The plant is of sufficient size and is admirably suited for the manufacture of a food product. They have at present about twenty-five hands at work and will be the exclusive manufacturers of Sunkist orange marmalade for Canada. The Toronto factory was located at 105 King Street East.

Doubling Machine Shop

B. J. Coghlin Co., Limited, Montreal, Make Considerable Enlargement to Their Plant

By adding another floor to their machine shop, B. J. Coghlin Company, Limited, Montreal, manufacturers of springs, axles, track tools and railway supplies, will more than double the output of that department. The company moved to the present site in 1912, were obliged to put up



Plant of the Hoover Suction Sweeper Co. of Canada, Limited

This is one of the latest United States branch industries to locate in Canada, the plant being erected in Hamilton

machine shop in 1915. The new floor will be 75 x 125 feet, additional buildings within two years, and built their present of brick and steel construction with metal sash. Besides this addition they are putting in a large installation for fuel oil to give them more room in their forge shop by doing away with coal, which necessarily takes considerable floor space. They will probably extend this building next summer.

Extending Plant at Guelph

Gilson Manufacturing Co., Limited, are Enlarging Both their Foundry and Machine Shop

To take care of their constantly expanding business in their "Goes like Sixty" line of gasoline, gas and oil engines and other lines of manufacture, the Gilson Manufacturing Co., Limited, of Guelph, are making plant extension at the present time. To their foundry they are adding a building 70 x 90 feet, and to their machine shop, a structure 140 x 80 feet, two storey high. The two extensions will enable them to increase their output materially.

Envelope Manufacturers Build

Barber-Ellis, Limited, are Making Considerable Extension to their Factory in Brantford

Barber-Ellis, Limited, envelope manufacturers, whose factory is located in Brantford, Ont., are making a substantial addition to their plant. The present building is 300 feet long by 100 feet wide. The extension will be uniform with their building, 100 feet long by 100 feet wide and two storeys in height, making the factory 400 feet long. A portion of the addition will be devoted to an enlargement of manufacturing facilities while the balance will be used for additional stock warehouse room. The construction is of reinforced concrete with brick facing, and the work will cost about $75,000.

The Great Plant at Anyox

Immense Industry Now Being Operated by the Granby Consolidated M. & S. Company

Started during the war in order to provide a sure supply of coke for their smelter at Anyox, B.C., the huge by-product coking plant of the Granby Consolidated Mining & Smelting Co., has only recently been completed and now stands as a monument to the faith of this company in the mineral possibilities of British Columbia. In a description of the plant appearing in the November issue of *Iron and Steel of Canada*, it is explained that the entire installation is practically an all-British achievement There are 30 ovens in all, stretching over 200 feet and standing 20 feet high. Gases driven off are conveyed to the by-product house where many by-products are secured. The plant has a capacity of 500 tons of coke daily, while out of each ton of raw coal carbonized there results 65% of the total weight in coke, 11,500 cubic feet in gas, 10 gallons of tar, 21 pounds of sulphate of ammonia, 3 gallons of light oil, 1.55 gallons of benzol, .40 gallons pure toluol, 30 gallons solvent napthalene, and 4 pounds crude napthalene. From the tar there is made creosote, pitch and many other useful by-products. The plant is the most efficient of its kind in the world, the loss in conversion being reduced to a minimum. The total investment at Anyox approximates eight million dollars.

New Factory Completed

Plant at Hamilton of Hoover Suction Sweeper Co. of Canada, Limited, Now in Operation

There has just been completed at Hamilton the fine new factory erected by the Hoover Suction Sweeper Co. of Canada, Limited, the recently-organized Canadian subsidiary of the Hoover Suction Sweeper Co. of North Canton, Ohio. The plant has an original capacity of 125 sweepers per day. The building is two stories high, of the most modern type of factory construction, and the foundation and walls are so built as to permit the addition of the third and fourth stories when the time for expansion has arrived.

Hoover Electric Suction Sweepers will be manufactured complete in this factory, with the temporary exception of the electric motors, which will be made to Hoover specifications in Canada by Canadian manufacturers. The building contains 30,000 square feet of floor space and is equipped with the wide variety of machines, tools and equipment required in producing Hoovers.

Chief among the manufacturing operations in the construction of the Hoover is the casting of the aluminum housing in which the sweeper is encased. This requires a foundry of large proportions. And the foundry at the new plant is most complete and up-to-date. A metallurgist also is employed to make tests and to supply formulas for the exact alloys to be used to insure the best and strongest type of aluminum castings. Machine shops of sufficient capacity to finish these castings, together with equipment for making the motor-driven beating-sweeping brush, which is an essential and exclusive part of the Hoover, are in keeping with the original manufacturing demands. These shops can be expanded later, with the growth of the factory. There is a small forest of automatic screw machines, lathes, drill presses, punching and stamping machines, reamers, grinders



Enlarged Factory at Hamilton of Zimmerman-Reliance, Limited

During the past season the Company have added 30,000 square feet of space to the plant by addition of a third storey

and polishers in the machine shops to perform a variety of operations that require accuracy and high-grade work.

Other important departments are the bag-making department, the big assembly rooms and the testing and inspection departments that exist throughout the plant. All parts of the Hoover are thoroughly inspected and tested both before and after assembly, so that there can be no question as to the high quality of manufacture.

Thomas F. Kelly is sales manager of the company, and is now building up a competent force of sales representatives in every large city and in most of the smaller cities and larger villages in the Dominion. The general offices are located at Hamilton in the new building.

Another Floor Added

Zimmerman-Reliance, Limited, Gain 30,000 Square Feet of Additional Space at Hamilton Plant

Through the recent addition of a third floor to their plant in Hamilton, Zimmerman-Reliance, Limited, have secured 30,000 square feet of additional floor space. With the exception of a room 80 x 80 feet at the front of the building, the entire floor will be devoted to the manufacture of hosiery, a new line for this plant. The front room is being fitted up in an up-to-date manner as a recreation and lunch room for employees and will no doubt be appreciated by the help.

Zimmerman-Reliance, Limited, represents an amalgamation of the Zimmerman Manufacturing Co. of Hamilton and the Reliance Knitting Co. of Toronto. The former was organized by Mr. A. F. Zimmerman in 1905 and specialized in balbriggans. The latter was organized by Mr. F. R. Sweeney in 1903, to make sweaters. The plants of the combined companies now contain over 160,000 square feet of floor space and employ 700 hands. Capacity is 1,000 dozen underwear, 1,000 dozen hosiery and 150 dozen sweaters daily. Mr. F. R. Sweeney is president; Mr. A. F. Zimmerman, vice-president and general manager, and Mr. A. B. Couch, sole selling agent of Zimmerman-Reliance products.

More Manufacturing Space

Knitted Goods Factory in Stratford is Being Very Con siderably Enlarged this Year

Before the end of the year R. M. Ballantyne, Limited, manufacturers of knitted goods, Stratford, hope to have the addition to their factory, recently under construction, completely equipped and ready for operation. The addition is a building 125 x 89 feet, two storeys and basement, of mill construction, and will add 50 per cent. to total floor space and 100 per cent. to manufacturing floor space. It has been erected for the purpose of relieving congestion in the present factory, bettering working conditions and enabling the company to instal additional plant to take care of increasing business. The staff has been increased 50 per cent. during the past two years and a considerable number more employees will have to be taken on during the next year to provide for the greater output demanded.

Coating Mill Enlarged

Pressure on Finishing Room at Georgetown Coating Mills Has Necessitated Some Relief

The Provincial Paper Mills Co. are at present building two additions to their coated paper mill at Georgetown, Ont., in order to relieve the pressure on the finishing department. An extension is being made to the finishing room, 80 x 90, two storeys high, and a new color room, 40 x 80, two storeys high, is also being erected. Both are of concrete block construction, similar to the main building, and were to be ready for occupancy by about December 1. The company report heavy orders which have been causing serious congestion in the finishing end. At other mills no changes are at present contemplated, but plans are being prepared for the erection of the first paper mill unit at Port Arthur.

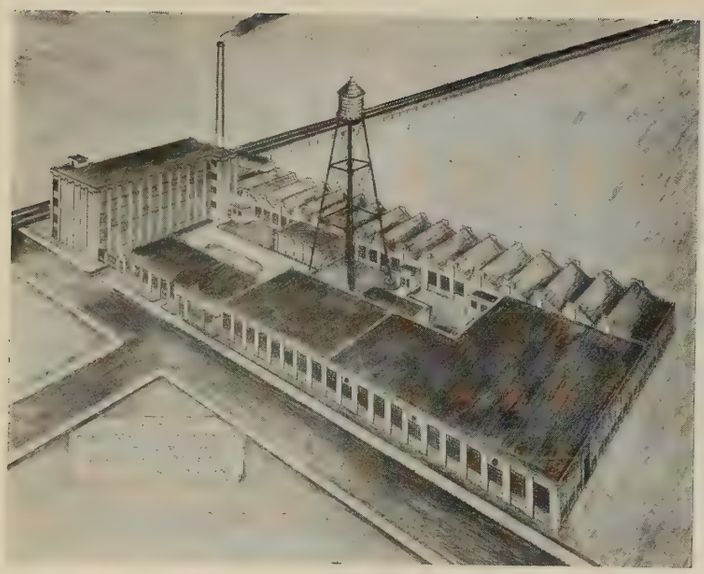
Grinding Wheels

The Norton Company of Worcester, Mass., are Establishing a New Industry in Hamilton

A plant for the manufacture of grinding wheels for the Canadian and British trade is at present under erection in Hamilton by the Norton Company of Worcester, Mass., a Massachusetts corporation with a capital of $9,000,000. The site of the plant is a tract of four acres at the corner of Lottridge St. and Beach Road, which the company have purchased from the Hamilton Bridge Works Co., Limited.

Only a few units of the projected plant will be erected at present, and these will be completed about February 1, whereupon the production of vitrified and silicate grinding wheels will be commenced. These will be made of alundum abrasive and crystolon abrasive, the former an aluminous abrasive made by the company from bauxite at electric furnaces at Niagara Falls, N.Y., and Chippawa, Ont., the latter an artificial abrasive chemically known as carbide of silicon, manufactured in electric furnaces at Chippawa, Ont.

The Hamilton industry will be operated by the Norton Company of Canada, Limited, a subsidiary corporation with a capital stock of $500,000, and the original units with their equipment will give employment to 60 men. The local or-



Nearly Ready for Operation

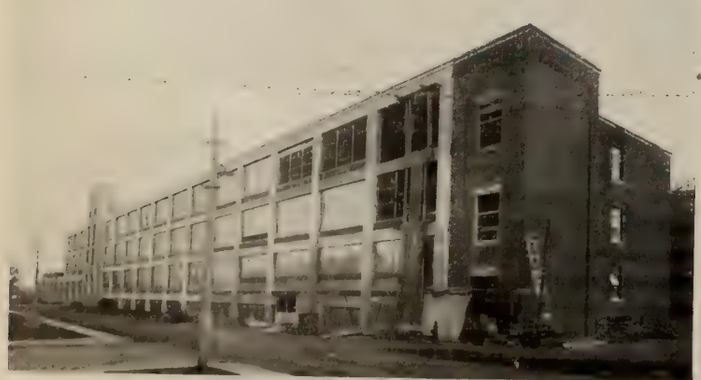
A bird's eye view of the fine new plant at Hamilton of Porritts & Spencer, Canada, Limited

ganization at Hamilton has not yet been decided upon, but the officers of the Canadian corporation will be to a great extent identical with those of the parent company. The Norton Company are the largest manufacturers of grinding wheels in the world, and their decision to make their product in Canada is an important development. The company also manufacture refractories and non-slip tile.

British Branch Industry

Plant of Porritts & Spencer, Canada, Limited, at Hamilton, is Now Nearing Completion

About three-fourths of the work on the plant being erected in Hamilton by Porritts & Spencer, Canada, Limited, is now complete and early operation is anticipated. This interesting development, which involves the location by Messrs. Porritts & Spencer, of Bury, England, of a branch factory in Canada, has many points of interest. The plant was designed in Hamilton by P. M. Smith, Vice-President of the W. J. Westaway Co., Limited, textile mill engineers, and was built by Hamilton contractors with local labor and building supplies. The first unit, as illustrated, forms a hollow square, which if straightened out would be over 1,000 feet in length. The structures are largely one-story, except the storehouse, which rises to four stories. About 90,000 square feet of floor space is provided. Construction is standard slow-burning mill construction and reinforced concrete. The largest unit, the spinning and weaving building, is 60 x 360 feet, one-story, with saw-tooth roof. It will be heated by a novel system of forced hot-water circulation and will be equipped with automatic sprinklers throughout. Ample provision has been made for expansion both in laying out the plant and in the choice of building site, as the present structures only cover about one-third of the eight acres of land owned by the Company. The product will at first be paper-makers' felts, but this line will doubtless be extended to other lines of woollen goods from time to time.



Mercury Mills Extend

Showing the 117 foot addition recently made to the plant of Mercury Mills, Limited, at Hamilton

A Record in Construction

Addition to Espanola Mill of Spanish River Pulp & Paper Mills Made in Record Time

It is believed that in the building and equipping of a plant to house two new paper machines, the Spanish River Pulp & Paper Mills have established a record at their Espanola Mill. The actual work of construction was commenced on June 4th, when the first sod was turned. One hundred and thirty-eight days later, No. 5, the first of the new machines, was making paper. The Espanola Mill was previously a four-machine mill. The decision to make it a six-machine mill was arrived at in 1916. At that time an order was placed with the Pusey & Jones Co., Wilmington, for two machines. However, the entry of the United States in the war led to the postponement of the undertaking and the matter was left in abeyance until May of this year, when it was decided to go ahead.

The work involved was the building of a two-machine mill from the ground up and the installation of machinery and equipment in these buildings. The first action taken was the complete study and preparation of a plan under which the work was to be done. The study of all the facts, with the plans and drawings available, led to the conclusion that it was perfectly possible to complete the construction by November 1st, providing the programme adopted could be carried out and providing the machinery and equipment contractors lived up to their estimated dates.

Have Extended Main Building

Large Addition Made to Factory of Mercury Mills, Limited, to Increase Production

Mercury Mills, Limited, Hamilton, manufacturers of hosiery and underwear, have just completed the erection of a substantial addition to their Hamilton factory, which will considerably increase the production of their regular lines. The main factory building, as erected in 1916-17, had a frontage of 371 feet, and consisted of two parts, the mill proper, 176 x 92 feet, and the dye house 176 x 51 feet. The extension now completed has been made to the mill and consists of a structure 117 x 92 feet, three storeys and basement. The company will take on quite a number of additional hands in order to make up a complete staff.

Increase Output 50 per Cent.

A New and Much Larger Plant Being Erected in Ottawa by Bishopric Wall Board Co., Limited

Replacing their plant destroyed by fire last August, the Bishopric Wall Board Co., Limited, Ottawa, are erecting and equipping buildings to give 50 per cent. more output and greatly improve working conditions. The old plant was largely of frame construction; the new plant is being built of brick, cement blocks and Bishopric stucco board. It includes main factory with boiler house, 105 x 60 feet, with 16-foot walls; dry kiln, 50 x 50 feet, with 9-foot walls, divided into three chambers, each chamber holding approximately

100,000 pieces of laths on truck; and planing mill, 48 x 50 feet, with 12-foot walls. They will also have a store shed, 50 x 90 feet, of frame construction, for storing manufactured board and roofing, and an open shed, 120 x 120 feet, for storing kiln-dried lath. Although capacity will be greater, they do not anticipate employing more labor, because laths will now be carried to the factory by carrying chains instead of trucks as before.

Furnace Fire Brick Industry

Gates Refractories, Limited, of Montreal, Acquire and Operate Plant Seven Miles from City

The plant formerly occupied by the Art Furniture Co., and located about seven miles from the centre of Montreal, has recently been taken over by Gates Refractories, Limited, who are now manufacturing furnace fire brick at the rate of about 300 tons per months. Hitherto, J. W. Gates, patentee of the bricks now being made, obtained his supply from other fire brick firms, but the demand increased so much that a sufficient supply could not be obtained from these sources. Accordingly the original company was reorganized and the present industry established. The buildings acquired are of two-storey brick construction with about 12,000 feet of floor space. Two kilns of 50 and 60 tons capacity respectively are in operation, and two other 60-ton kilns will be completed by the end of the year. The company will specialize in power plant brick work.

Increasing Newsprint Output

The Laurentide Company Will Add Two Immense Paper Machines to Their Equipment

Through the addition of two 166-inch newsprint machines, the Laurentide Company of Grand-Mere, Que., will increase the capacity of their paper mills to 360 tons per day. In announcing the decision of the management to make this increase in equipment, the *Digester*, the company's house organ, says:—

The new machines are to be placed in a new building to the west of the present Number 3 machine room. This building will be 320 feet long by 90 feet wide and two storeys in height. It will be of non-combustible construction throughout and its architectural design will be similar to the present machine rooms, except that it will have a flat concrete roof on steel trusses. The interior of this new machine room will be one of the "show" places of the plant. The walls will have enamelled tile wainscoting and the floors are to be of special composition similar to those in the power house.

"Both of the new machines are to be designed to run up to one thousand feet of paper per minute. They will not start off at this pace when they are first run, however. They will be started at about 650 feet per minute, and as they become "tuned up" their speed will be increased until they reach the maximum of one thousand feet every minute that they run. The length of the wire will be about 112 feet, and it will be pitched about four feet. There will be four presses and forty dryers, each six feet in diameter. The details of the driving arrangement have not yet been fully worked out, but it is expected that a very great improvement will be made over anything that has been installed up to date. The machines will also have a number of new features, details of which are not yet available. Over each of the machines will be an electric travelling crane of about twenty-five tons capacity.

"In addition to the extension to the Paper Mill, other new equipment is to go into the Laurentide Plant in the near future. Three new grinder units are to be placed in an extension to the present grinder-room. Outside of these, the new machines will require additional machinery in the ground-wood screen room, and new equipment in the boiler-house, where an additional battery of boilers will be installed. No changes will be necessary in the sulphite mill, as it already has much more than sufficient capacity to supply the additional requirements of sulphite pulp. The present sulphite slush system will be extended to take care of the new machines.

More Production by Abitibi Co.

Big Newsprint Paper Mill at Iroquois Falls Will Have Additional Capacity Next Year

The foundation of a large extension to the mills of the Abitibi Power & Paper Co., Limited, at Iroquois Falls, Ont., is now in and construction of the new building will be proceeded with next spring. It is being erected to house three new machines, which will add very considerably to the capacity of the mills. Two of the new machines are for the manufacture of newsprint paper, being 232 inches wide, with a capacity of 85 tons each. The third is a board machine, 132 inches wide, with capacity of 60 tons. The company hope to have one of the newsprint machines and the board machine in operation in the fall of 1920 and the other newsprint machine in operation a year later. In the meantime the mills are running to capacity.

Building Foundry

Auto Specialties Manufacturing Co. of Canada Will Erect Malleable Iron Foundry

One of the notable developments of the day at Windsor is the announcement that the Auto Specialties Manufacturing Co. of Canada have purchased a site of 10½ acres on which they will erect a modern malleable iron foundry and other buildings later on. The company are already located in



Crabtree Division, Howard Smith Paper Mills, Limited

Which will be further extended to provide additional capacity for the manufacture of sulphite bonds



A Recent Plant Extension in Hamilton

An Addition, 208 feet long by 75 feet wide for warehousing purposes, now under erection by the Canadian Steel and Wire Co., Limited

Windsor where they manufacture Bair Bow separating top holders, automobile jacks and malleable iron motor car parts, and their purpose in erecting a foundry is to supply themselves with malleable iron. The first unit of the foundry will cover approximately 45,000 square feet and will cost about $200,000. Its erection will be followed by that of a machine shop, 200 x 80 feet. The buildings will be the latest word in building construction, ample thought having been given to light, ventilation, etc., and they will be absolutely fire proof. The company expect to have the plant ready for operation by April and will employ about 200 hands. Apart from their own requirements, they will be able to take on some custom work.

Cotton Mill Enlargements

Canadian Cottons, Limited, Have Been Carrying Out Large Programme at Hamilton

By raising the roof on their No. 4 and No. 5 buildings at Hamilton and adding a third storey, Canadian Cottons, Limited, have secured approximately 24,000 square feet additional floor space. This has enabled them to instal more carding and spinning machinery, sufficient to increase their spinning product by about 25 per cent. They have also added another storey to their old engine room building, giving 2,000 square feet more space which will be used for employees' dining room and first aid room. At present they are adding two storeys to their cotton warehouse, which will increase cotton storage capacity by 11,500 square feet. They expect to have all enlargements completed and in operation by the first of the year.

New Pulp and Paper Co.

Great Lakes Paper Co. Will Proceed With Their Proposed Industry at Port Arthur

Wiring from Chicago on November 7 to D. M. Hogarth, M.P.P., Port Arthur, Lewis L. Alsted, president of the Combined Locks Paper Co., of Combined Locks, Wisconsin, stated that it was the intention of the Great Lakes Paper Co., to proceed at once with their proposed pulp and paper industry at Port Arthur. The plant will be located on the Carrick property, consisting of 100 acres and lying north-east of Port Arthur. It will consist of ground wood, sulphite and paper mills of 30,000; 7,500 and from 33,000 to 35,000 tons per annum capacity, respectively. The power will be supplied from the Nipigon development of the Ontario Hydro-Electric Power Commission, for which a contract has already been signed. The first unit will be in operation by December, 1920, and the paper mill by June, 1921. The cost of construction will be from $5,000,000 to $6,000,000. Interested in the company, in addition to Mr. Alsted, are George Seaman, president of the Seaman Paper Co., Chicago, and James Whalen, president of the Port Arthur Shipbuilding Co., and a director of the Whalen Pulp & Paper Co.

Three Hundred Motors a Week

New Company Secure Plant at Stratford for Manufacture of Phonograph Motors

With a ready market at their door in the McLagan phonograph industry, Canadian Phono Motors, Limited, which has recently been organized at Stratford, will commence the manufacture of phonograph motors shortly after the first of the year. The company have secured an existing building, 40 x 80 feet, three storeys and basement, and are putting it in shape for their purpose. They expect to produce 300 motors a week at first and hope to give employment to about fifty hands. While not financially connected with the Phono-Motor Mfg. Co., of Brooklyn, N.Y., the Canadian company will manufacture from the same patents. The manager is Mr. E. H. Wilkinson, whose father is Mr. E. E. Wilkinson, manager of the Phono-Motor Co.

Knitting Factory for Owen Sound

Clinton Knitting Co. of Clinton, Ont., Establish Branch Industry and Start Operations

Operations started on November 10th at the branch plant located by the Clinton Knitting Co. of Clinton, Ont., at Owen Sound. The company have leased about 4,000 square feet of floor space in a building on 9th Street East, occupied by the Owen Sound Garage, Limited, and are starting in a small way, though they plan eventually to employ from 50 to 100 girls. In fact the size of the plant will only be limited by the amount of help they can secure. Knitting only will be done at first, and goods will be forwarded to Clinton where they will be dyed and finished. Later a dyeing plant will be installed. The company manufacture hosiery only. The industry was started in Clinton 14 years ago and now employs 63 hands, with a branch employing 35 hands at Wingham. The



Extending the Big Plant of the Goodyear Tire and Rubber Co. of Canada

This photograph shows progress on new wing, 120 x 160 feet, at east end, and the start of construction on west wing of similar size. These additions will increase the plant's capacity from 2,500 to 3,500 tires per day

largest shareholders are the Owen family, formerly of Clinton, but now of New York. Charles F. Libby is secretary and general manager, and his son, Frank J. Libby, will take charge of the Owen Sound plant.

May Enlarge Soon

Canadian Plant of the Shredded Wheat Company Will Soon Require Enlargement

Referring to the report that the Shredded Wheat Company, Niagara Falls, contemplated making additions to their plants on both sides of the Niagara River, Mr. R. W. Ogden, Secretary, states that: "We do not propose at present to make any alterations or additions to our plant on the Canadian side, although, with the present growth of our business, some enlargement or change in that plant will have to be taken care of in the near future. At the present time our plans consist of a duplication of our present plant located on Erie Avenue, Niagara Falls, N.Y., together with the addition of several units to our wheat storage elevator.

New Milling Company

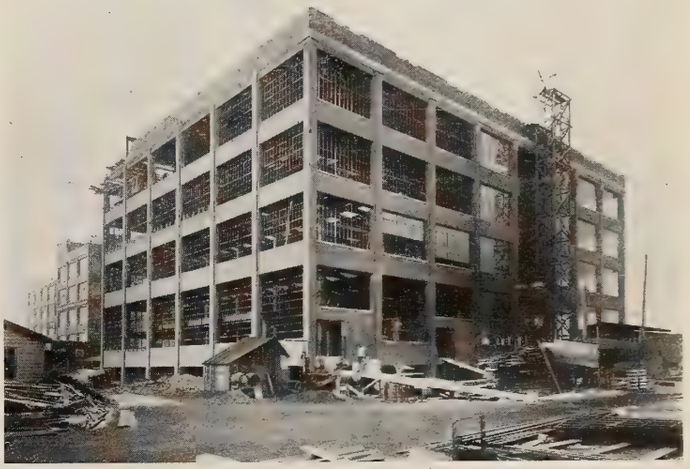
Judge, Jones Milling Co., Limited, Have Established Milling Industry at Belleville

There has just been completed at Belleville a mill with capacity of 250 barrels of flour, 250 barrels of corn flour, 100 barrels of rolled oats, 300 barrels of corn meal, and 1,000 sacks of feed per day, in addition to an elevator to handle oats and grain for cleaning and bagging in transit. The industry belongs to the Judge, Jones Milling Co., Limited, a new company affiliated with the Judge Grain Co., of Montreal, and in which Grahams Limited, of Belleville, hold a half interest. Mr. George B. Jones, a miller of several years' experience, is manager, and the plant was to have been ready for operation about December 1.

Another Branch Plant

Eclipse Machine Co. of Elmira, N.Y., are Locating an Industry in Walkerville

The Eclipse Machine Co. of Elmira, N.Y., manufacturers of brakes, clutches, etc., have recently purchased the empty factory of the Cott-a-lap Co. of Walkerville, Ont., and will probably begin operations before the end of the year, employing about one hundred hands at the outset. The plant



Corner View of New Wing

Taken from the south-east corner of the Goodyear building, and showing the main building in the background to the left

consists of two good large buildings, one of two storeys and the other one storey. The Cott-a-lap Company manufactured jute for paneling the walls of rooms, but owing to the war and the consequent shortage of material, they suspended operations and have now disposed of their plant. The price paid is stated to be $40,000.

New Whitewear Industry

Sound Whitewear, Limited, Started Operations During November in Owen Sound

Reference was made in the November issue to the establishment in Owen Sound of a new whitewear industry by Messrs. McKnight and Kelley. It is now possible to state that the company will operate under the name of Sound Whitewear, Limited, with R. C. McKnight, President; J. J. Kelley, Secretary-Treasurer; and R. G. McKay, Elias Lemon and John Parker, Directors. The company have leased Lemon's Hall, which has 7,500 square feet of floor space, and will manufacture ladies' and children's whitewear, giving employment to 25 girls at the outset. The company's product will be disposed of through the jobber and retailer.

Turn to Page 95 for Additional Industrial Expansion Information

Freight Claims and Their Collection

This is the First of a Series of Articles Setting Forth the Proper Methods of Preparing and Presenting Freight Claims to the Carriers to Ensure Prompt Settlement—The Problem is One of Special Interest to Every Shipper and Receiver of Freight, Especially Those Without the Aid of a Traffic Manager

By F. R. ALLWARD

Transportation Department, Canadian Manufacturers Association

"HOW to collect freight claims?"—that is the problem confronting every shipper and receiver of freight, where the volume of business does not warrant the services of a competent traffic manager. There is probably no point of contact between the railways and their clients that causes more friction, and it is perhaps equally true to say that there should be none easier of adjustment.

Railway managers now realize that the manner in which claims are handled has a direct and important bearing on the attitude of the shipping public toward the carrier and thus very directly on the success or failure of the struggle of the various lines and systems to retain old and acquire new business.

The broad principles of this new policy are being gradually instilled into the minds of railway claims agents, as well as of all employees whose duties require them to negotiate with claimants. However, the carrier must comply with the law, as embodied in the Canada Railway Act, and it is ignorance of this law (or failure to observe it) on the part of many shippers that is responsible for nine-tenths of the trouble.

Claims Accepted in Good Faith

In the ordinary channels of trade, such as the sale and distribution of manufactured goods, a high standard of ethics has grown up in recent years, as a result of which a claim made by a customer for goods not up to standard, damaged, or short received, is almost invariably accepted in good faith. In fact, many of the most progressive houses have adopted the motto: "The customer is always right," and every claim is adjusted on that basis.

It is perhaps natural, therefore, for the small shipper not fully conversant with the law of carriers, to file a claim in a more or less informal manner and to expect the railway company to arrange a prompt adjustment in accordance with the usual trade custom.

Right there is the crux of the trouble—the cause of most of the friction between the railways and their clients.

A railway company, in undertaking for hire to carry goods for the general public, subjects itself to the law of carriers under Common Law, as well as the Canadian Railway Act. Sections 427, 428 and 429 of the Act have a direct bearing on the settlement of freight claims and govern largely the policies and methods of investigation followed by the Claims Department of a railway. Section 427 expressly provides that:

"Any officer or agent of any railway company who knowingly or wilfully permits any person or persons to obtain transportation for property at less than the legal rate established, by means of false billing, false classification, false report of weight, *or by any other device or means*, shall for each offence be liable to a penalty not exceeding $1,000 and not less than $100.00."

It is also provided in Section 428 that:

"Any person or persons who shall knowingly or wilfully, with or without the connivance of the carrier, obtain transportation for goods at less than the published rates by false billing, false classification, false representation of the contents of the package, *or by any other device or means*, shall for each offence be liable to a penalty not exceeding $1,000 and not less than $100.00."

A claims agent of a carrier, who fails to properly investigate or verify a claim, is deemed guilty on the charge of having permitted the claimant to obtain transportation of his property at less than the legal rate. The consignor or consignee who files a fictitious claim is also deemed guilty of having violated the law and is subject to a fine or imprisonment.

It will be readily perceived therefore that a claims agent must of necessity thoroughly investigate and verify a claim by documentary proof, before authorizing payment, and in doing so he is protecting the interests of the claimant as well as of the carrier. A shipper's word may be as good as his bond, in the ordinary channels of trade, but if he expects a railway company to give his claims favorable consideration he must follow the rules of evidence as practised in the courts of law. In other words: he must furnish the carrier with the documents and proof usually required in support of a claim and keep his records of the entire transaction in such shape that they are readily accessible as evidence.

The claims department of a railway is an informal court, and the official in charge a judge; and, if the facts submitted in support of a claim are not conclusive evidence of his company's liability, he is justified in refusing to authorize payment.

Easily Adjusted if Properly Submitted

It has been stated above that of the various questions arising between the shipper and the carrier, none should be easier of adjustment than a claim by the shipper against the carrier for loss, damage or overcharge in freight, for the reason that when the carrier accepts a shipment for transportation, it thereby undertakes to transport that shipment from the point of origin to the point of destination, within a reasonable time, and to deliver it in good condition (or at least in the same condition as received). This is done under a clear and explicit contract, which, taken with the duties and obligations placed upon it by law, governs and controls where there is a breach by either party. Consequently, should the goods suffer damage or be lost in transit, or if the contract is broken in any other way, it simply rests with the shipper or the consignee to present a claim to the carrier, and if properly verified the latter has no recourse but to honor the same.

Legal questions will, of course, arise in determining whether or not there has been a breach of contract for which the carrier is liable to the shipper; but it may safely be stated that in the majority of claims the carrier's liability is so very apparent that the carrier does not attempt to waive responsibility.

A claim may be presented to the local freight agent of the carrier, who is responsible for the breach of contract. but many experienced shippers prefer to negotiate direct with the claims agent. However, either method of serving claim

is in order, provided same is supported by the proper documents and a full statement of the facts relating thereto.

The following list contains a brief description of the documents required:

LOSS AND DAMAGE.

(1) Statement of claim containing description of shipment; name and address of shipper; consignee; point of origin; destination; number and description of articles; nature and extent of loss or damage; invoice price of articles; amount of claim, etc.

(2) Original bill of lading—if not previously surrendered to carrier.

(3) Original paid freight (expense) bill.

(4) Original invoice, or certified copy.

(5) Other particulars obtainable, in proof of loss or damage claimed.

CLAIMS FOR OVERCHARGE.

(1) Statement of claim, showing charges and rate assessed; rate claimed, and tariff authority.

(2) Original paid freight bill.

(3) Original bill of lading—if not previously surrendered to carrier.

Additional Articles to Follow

In the succeeding articles which will be published each month in INDUSTRIAL CANADA, an attempt will be made to set out the steps that should be followed by a shipper or consignee in keeping a record of each transaction where there is a breach of contract by the carrier, in order that proof may be readily available.

Service to Australasia

S.S. Orari to Sail from West St. John on December 15 for Auckland, etc.

The New Zealand Shipping Company will have the steamer *Orari* on the berth at West St. John to sail about December 15th for Auckland, Wellington, Lyttleton, Timaru, Melbourne and Sydney. All requests as to space and rates should be addressed to the New Zealand Shipping Company, Limited, 213 Board of Trade Building, Montreal.

Handling Perishable Traffic

How Shippers by Express May Help in Effort to Conserve Food Supply

A bulletin has been issued to the shipping public by the Express Traffic Association of Canada, dealing with the handling of perishable traffic by express during cold weather. Its contents, which are as follows, are brought to the special attention of manufacturers:

"In view of the susceptibility to damage by frost during certain months of the year—approximately from the 1st of November to the 31st of March—the express companies desire to direct attention to the necessity of better protective packing for such articles as green or fresh fruits and vegetables, flowers, liquids, etc. The Government is, quite properly, putting forth extraordinary efforts to conserve the food supply. It is also your duty and ours to prevent destruction.

"Express goods are carried on passenger trains, which are heated by steam or otherwise. Shippers may be under the impression, therefore, that perishable articles forwarded by express are always quite safe from frost, but it must be remembered that these goods are hauled by wagons in the cities, and are of necessity moved on station platform trucks between trains and depots, where heated protection cannot always be provided.

"The express companies are not liable for any loss or damage to shipments caused by weather conditions which are beyond their control.

"In the mutual interests of shippers and express companies, and of the public welfare, you are respectfully asked to assist in the matter of better protective packing, and also to refrain from tendering to the express companies for shipment perishable articles which are not sufficiently packed to protect the contents from damage by frost. The express companies prefer that their patrons should take suitable steps in this matter, thus avoiding the necessity of their declining to accept and receipt for shipments not properly protected."

Marking Express Shipments

Pamphlet Issued by Express Traffic Association for Education of Shippers by Express

A pamphlet was issued last month by the Express Traffic Association of Canada, containing the classification requirements and suggestions to the public relative to the proper marking of express matter. As the subject is one of much importance in expediting the handling of the express these marking requirements are reproduced herewith:—

(*a*) Each package, bundle or loose piece in a shipment must be plainly, legibly and durably marked, showing the name of only one consignee, and of only one station, town or city and province to which destined. Old marks must be removed or effaced by the shipper.

(*b*) Shipments wrapped in paper, or packed in boxes, crates, barrels, corrugated strawboard, pulpboard or fibreboard containers must be marked with pen, brush, stencil, waterproof crayon, or by label securely attached with glue or equally good adhesive. Such shipments must not be accepted when marked only with tag, except as provided below:

Shipments of iced goods, such as fish, oysters, etc., must be marked with brush, stencil or waterproof crayon, or with two tags securely tacked, one of which must be sunk in a groove in the box or case, or otherwise protected in such manner as to prevent becoming detached or defaced by contact with other articles or surfaces.

Containers which are customarily used several times for transportation of goods by express, such as bread boxes or dog kennels, which cannot be satisfactorily marked with brush, stencil, waterproof crayon or label, may be accepted when bearing two address tags securely attached to the package.

(*c*) *Castings, Machine Parts, Shafting, Pipe, Rods, Bars, and Other Metal Articles*:

1. When boxed, barreled, crated or trussed, must be marked in compliance with paragraph "(*b*)."

2. When not boxed, barreled, crated or trussed, and there is sufficient smooth surface for the purpose, the address must be plainly marked on the article with durable paint. Such shipments must not be accepted unless marks are thoroughly dry.

3. When not boxed, barreled, crated or trussed, or when not possible to mark as provided in preceding paragraph, shipments must be marked with not less than two wooden, leather, metal, cloth, rope stock or sulphite fibre-tag-board tags. Rope stock or sulphite fibre-tag-board tags may be either wholly of sulphite or rope stock or a combination of both, must test not less than 14 point, have reinforced metal eyelets, and must be attached by wire not less than 23 gauge, or strong cord. Tags must be attached wherever possible to unexposed parts of the article in order that they may not become detached in handling.

4. When tags are used for marking Rods, Shafting, Bars, Pipe, Iron Bed Sides, Automobile Springs and other articles of like character, shipped singly or in bundles without packing, there must be two tags, conforming to specifications of paragraph "3," both tags securely attached to the article by wire not less than 23 gauge, or strong cord; one tag to be concealed by being bound to the article with a burlap covering, the latter securely fastened at each end.

5. When metal articles are shipped in sacks, the address must be shown on tag conforming to the specifications in paragraph "3," attached either by wire or strong cord, and an additional tag bearing the same address must be enclosed in the sack.

(*d*) *Trunks, Suit Cases or Valises.*—Must be marked with one strong tag and have an address label pasted on the bottom in addition thereto before forwarding. Shippers should place a duplicate address inside of these articles for the purpose of identification.

(*e*) *Automobile Tires.*—When not boxed or crated, must have two marks, both to be attached to the inner surface of the package, bale or tire, and to consist (1) of a strong tag securely attached, and (2) another tag bearing the same

address, securely bound by burlap or cloth, or an address label pasted on the inner surface.

(*f*) *Bedding, Carpets and Rugs.*—When not boxed or crated, must be sewed up in burlap or some other substantial cloth covering, and marked with stencil or brush; such shipments must not be accepted when marked only with tag. Shippers should place duplicate address inside of the bale for the purpose of identification.

(*g*) *Nursery Stock and Trees* in bundles or bales must be marked with not less than two tags, securely attached, and when in bales, shippers should place a duplicate address tag inside the bale for the purpose of identification.

(*h*) *Household Goods and Furniture* which, under individual items may be accepted when not boxed or crated, must be marked by not less than two tags securely attached to each piece.

(*i*) *Lot Shipments.*—Except when in carloads, each package or article in a lot shipment must be marked in compliance with these requirements.

(*j*) *Shipments not marked in accordance with the foregoing requirements, or as noted under individual items of the Classification, must be refused.*

Steamship Services

Steamship Companies Are Now Transferring Their Sailings to St. John and Halifax

Navigation from the port of Montreal closes about November 26th. Commencing about December 1st, the Canadian Government Merchant Marine, Canadian Pacific Ocean Services, Furness Lines, Manchester Liners, Canadian-Transatlantique Line, Head Line, Marine Navigation Limited, Houston Line, Elder Dempster Line, and New Zealand S.S. Company, will begin the winter season from West St. John, St. John and Halifax.

The C.P.O.S., in their sailing list No. 1, for the winter season, dated November 21st, 1919, show the following sailings from West St. John, St. John and Halifax:—

West St. John to Liverpool.

Mategama	C.P.O.S. Lines	Ab't Dec. 4
*Canadian Rancher	Can. Govt. Mer. Marine, Ltd.	Ab't Dec. 6
*Canadian Ranger	Can. Govt. Mer. Marine, Ltd.	Ab't Dec. 10
Corsican	C.P.O.S. Lines	Ab't Dec 13
Empress of France	C.P.O.S. Lines	Ab't Dec. 19

* Sails from St. John.

West St. John to London.

Grampian	C.P.O.S. Furness Lines (C.P.O.S.)	Ab't Dec. 7
Montcalm	C.P.O.S. Furness Lines (C.P.O.S.)	Ab't Dec. 9
Mattawa	C.P.O.S. Furness Lines (C.P.O.S.)	Ab't Dec. 10
Cornish Point	C.P.O.S. Furness Lines (Furness)	Ab't Dec. 20

West St. John to Antwerp.

Messina	C.P.O.S. Furness Lines (Furness)	Ab't Dec. 5
Castellano	C.P.O.S. Furness Lines (Furness)	Ab't Dec. 20
War Beryl	C.P.O.S. Furness Lines (C.P.O.S.)	Ab't Dec. 26
Tunisian	C.P.O.S. Furness Lines (C.P.O.S.)	Ab't Dec. 28
Holbrook	C.P.O.S. Furness Lines (C.P.O.S.)	Ab't Dec. 29

West St. John to Glasgow.

Pretorian	C.P.O.S. Lines	Ab't Dec. 10
Sicilian	C.P.O.S. Lines	Ab't Dec. 18

West St. John to Avonmouth Dock (Bristol).

Sardinian	C.P.O.S. Lines	Ab't Dec. 26

West St. John to Manchester.

Manchester Hero	Manchester Liners	Ab't Dec. 14

West St. John to Havre (France).

Bilbster	Can. Trans. Atlantic Line	Ab't Dec. 6
Hudson	Can. Trans. Atlantic Line	Ab't Dec. 13

West St. John to Belfast.

Ramore Head	Head Line	Ab't Dec. 15

West St. John to Dublin.

Fanad Head	Head Line	Ab't Dec. 12

West St. John to St. Nazaire (France).

Cape Corso	Marine Navigation Ltd.	Ab't Dec. 15

West St. John to Buenos Ayres and Montevideo.

Hyanthes	Houston Line	Ab't Dec. 15

West St. John to South African Ports—Cape Town, Port Elizabeth, East London, Durban, Delegoa Bay.

A Steamer	Elder-Dempster Line	Ab't Dec. 20

West St. John to Australasian Ports—Melbourne, Sydney, Auckland, Wellington, Timaru.

Orari	New Zealand S.S. Company	Ab't Dec. 15

St. John to Barbados, Trinidad, Demerara and B.W.I.

Chaudiere	Royal Mail Steam Packet Co.	Ab't Dec. 9

St. John to Kingston, Jamaica, and Havana, Cuba.

Canadian Warrior	Can. Govt. Mer. Marine, Ltd.	Ab't Dec. 30

Halifax to Liverpool.

Canadian Seigneur	Can. Govt. Mer. Marine, Ltd.	Ab't Dec. 15

Halifax to Glasgow.

Canadian Trapper	Can. Govt. Mer. Marine, Ltd.	Ab't Dec. 5

Halifax to Rio Janeiro, Santos (Brazil), Buenos Ayres (Argentine).

Canadian Spinner	Can. Govt. Mer. Marine, Ltd.	Ab't Dec. 20

Halifax to Havana, Cuba.

Canadian Trader	Can. Govt. Mer. Marine, Ltd.	Ab't Dec. 3

Halifax to Barbados, Trinidad and Demerara.

Caraquet	Royal Mail Steam Packet Co.	Dec. 1
Canadian Signaller	Can. Govt. Mer. Marine, Ltd.	Ab't Dec. 27

Halifax to Santiago (Cuba) and Kingston (Jamaica).

Amanda	Pickford & Black	Ab't Dec. 25

The Cunard Line and the White Star-Dominion Line will transfer their sailings to the port of Portland, the sailings published by the G. T. R. from Portland being as follows:—

Portland to Liverpool.

Dominion	White Star-Dominion Line	Ab't Dec. 2
Megantic	White Star-Dominion Line	Ab't Dec. 6

Portland to London.

Chipana	Cunard Line	Ab't Dec. 14
Willaston	Cunard Line	Ab't Dec. 18

Portland to Glasgow.

Saturnia	Anchor-Donaldson Line	Ab't Dec. 9
Cassandra	Anchor-Donaldson Line	Ab't Dec. 17

Portland to Avonmouth.

Turcoman	Dominion Line	Ab't Dec. 11
Welshman	Dominion Line	Ab't Dec. 20 1920
Cornishman	Dominion Line	Ab't Jan. 2 1919

Portland to Hull.

Maplemore	Furness Line	Ab't Dec. 10
Grampian Range	Furness Line	Ab't Dec. 20

Portland to Leith.

Cairndhu	Thomson Line	Ab't Dec. 7

An Experimental Brick Plant

Enterprise of Nova Scotia Steel & Coal Co., Limited, in Making Their Own Fire Brick

An interesting description of the brick plant now being operated by the Nova Scotia Steel & Coal Co., Limited, at Sydney Mines is given in the November issue of *Iron and Steel of Canada*. Prior to 1916 all the refractories for the company's blast furnaces and steel mills at Sydney Mines were obtained from the United States, but, even when times were normal, deliveries were uncertain. This was aggravated by the war and the company were faced with a serious problem. In order to improve conditions it was decided to build a brick plant. This was done in 1916 and, as originally designed, the machinery building was 30 x 60 feet. The dry shed was soon found to be too small and an extension was built bringing the size up to 80 x 72 feet. A second kiln was also built, bringing the capacity of the plant up to about 5,000 bricks per day. The completed installation cost $27,000. Concluding his description, the writer, Mr. A. Dawes, superintendent of power, says:

"To sum up, this plant, which was started on an experimental basis, has proved itself a success and demonstrated that good refractories can be made from material obtained from the Nova Scotia Company's own collieries and from other sources in the province. The cost of bricks made in this plant was generally lower than those obtained elsewhere, but the factor which appeals most strongly to those in charge of operations at the steel plant at Sydney Mines is that they have on hand a brick-making plant which is a standby against any delays in delivery or hold-ups due to any cause of the firebrick necessary for their extensive steel industry."

Canadian Exporters' Exhibition in London, Eng.

Endorsed by

Canadian Mission in London
The Department of Trade and Commerce, Ottawa
Canadian Trade Commission, Ottawa
The Canadian Manufacturers Association

The first entirely Canadian Industrial Exhibition, to be held outside of our Dominon, is scheduled to take place in the Royal Agricultural Hall, London, England, from June 3rd to June 17th, 1920, inclusive. Held under the auspices mentioned above, this exhibition will undoubtedly be of the greatest possible value to the Canadian Manufacturers.

London is the mart of the world. It is the giant clearing-house for world trade, wherein importers buy, not only for British account, but to a very large extent for foreign buyers as well. Representatives from these importing houses, and from others throughout the United Kingdom, will visit the Canadian Industries Exhibition by special invitation.

Personal salesmanship and actual demonstration are universally acknowledged to be the fundamental elements in selling goods. If your Company is already represented overseas, the British buyers will look for your booth at the Exhibition. If your Company is seeking such representation, the Exhibit offers you the easiest, quickest, and most economical way to attain your object.

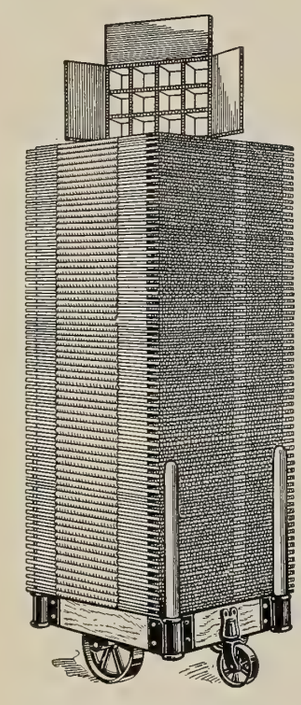
CANADIAN INDUSTRIES EXHIBITION

AGRICULTURAL HALL

LONDON, ENG.

June 3rd to 17th, 1920

For full particulars apply to O. C. PEASE, 41 Victoria St., Toronto



OUR SPECIALTY
FOLDING CELLBOARD
FREIGHT BOXES

Cellboard is the proper name for what is commonly called corrugated board

Established 1909

ADAMS CELLBOARD COMPANY

MANUFACTURERS OF FIRST QUALITY

SHIPPING CONTAINERS AND CORRUGATED PAPER

IMPORTERS OF

GUM SODA AND SEALING TAPES

Our board is the thickest on the market. Our capacity is a carload per day

We desire to have your samples or measurements to quote on when you are considering placing an order

5 TO 21 DEFRIES STREET
AND DON ESPLANADE
TORONTO

For Sale—Factory Sites

LACHINE CANAL
MONTREAL, QUEBEC

WE HAVE received instructions to sell the property belonging to CANAL LANDS LIMITED situated on the South side of the Lachine Canal, practically within the CITY LIMITS. The property is the first one outside the LIMITS.

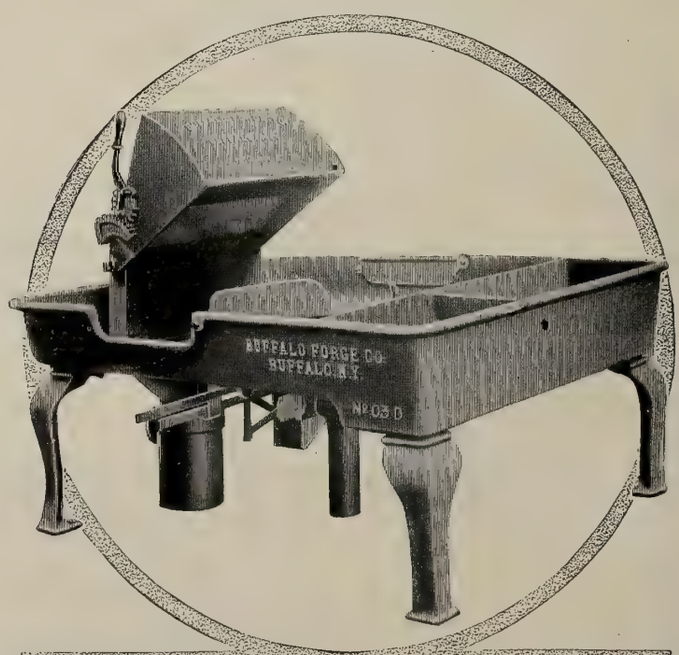
Owing to its close proximity to THE TOWN OF COTE ST. PAUL, which now forms part of the CITY OF MONTREAL, LABOR CONDITIONS ARE EXCEPTIONALLY GOOD.

The very best shipping facilities both by rail and by water.

It has a frontage on the LACHINE CANAL of 959 feet, and an average depth of about 2,488 feet, and a superficial area of 2,500,375 square feet. Would sell en bloc or in smaller parcels to suit purchasers.

For further particulars apply to

REAL ESTATE DEPARTMENT,
MONTREAL TRUST COMPANY,
11 Place D'Armes, Montreal, Que.



HEAVY DUTY FORGES

Canadian Forges are designed for the particular work they are required to do

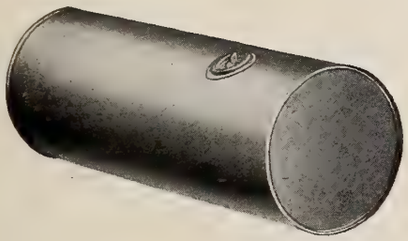
Our Catalogs 100 and 108-14 describe our full line. Write for a copy.

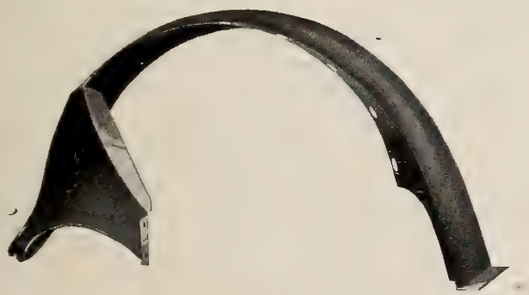
CANADIAN BLOWER & FORGE CO., LTD.
KITCHENER, ONT.





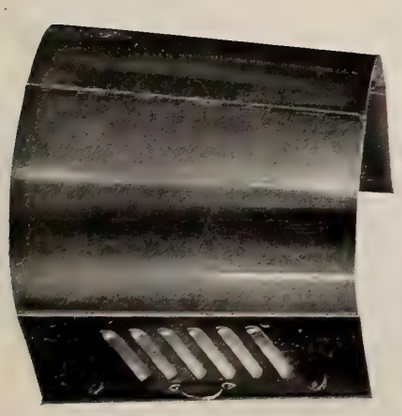


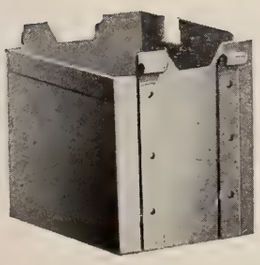


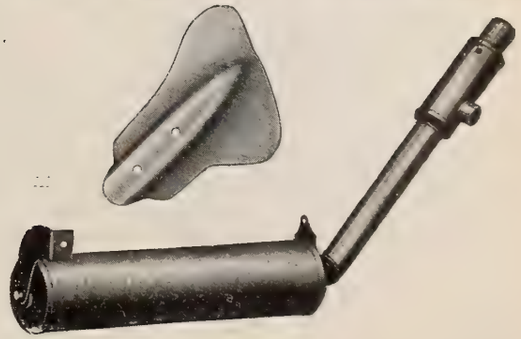












—and here's the proof—

of our exceptional skill in the production of all kinds of

STEEL STAMPINGS

OUR regular business for many years has been based on metal stamping. Consequently, we have developed a metal stamping department with batteries of heavy presses, hammers and other up-to-date equipment that make for the very highest efficiency.

We are doing a vast amount of automobile body stampings—work that is of the most difficult character. Our success in this line clearly indicates our ability to serve you.

If you are in the market for steel stampings of any size write us for quotations. Our prices, the quality of our work, and the reliability of our service will give you complete satisfaction.

THE PEDLAR PEOPLE, LIMITED

Established 1861

Executive Office and Factories: Oshawa, Ont.

Branches: Montreal, Quebec, Ottawa, Toronto, Winnipeg, Vancouver

All Time Recorders are not Fully Automatic

and unless they are, they cannot give the complete Time Recording service you need

This description of the exclusive International Automatic features is worth every Time Recorder buyer's attention

THE demand for International Time Recorders has increased to such an extent that we feel it will be of assistance to the buyer if we make clear just what is meant by a "Fully Automatic Time Recorder."

Let us see what this means in the card type of recorder. A fully automatic time recorder is one that entirely eliminates the human element as to its operation in any shape or form. It has what is known as three specific automatic devices.

First, is the two color device or the red record, which is printed automatically by the recorder when any employee registers one minute late, or leaves one minute earlier than schedule time. The great value of this device is recognized not only for its moral effect on employees, but as well the saving of time in making up the payroll.

Second. The second automatic device is known as the automatic "Day to Day," and is a device on our recorders that shifts the position of the card holder at each midnight, so that it will register in the proper column for the subsequent day. It is a very important device, for should this be left to be done by hand, it may easily be forgotten, then the record would be printed on top of the previous day's record, which would destroy them, and it further leaves the opportunity for a malicious person to set this so it will print in the wrong column. The "Day to Day" automatic shift is purchased by a vast majority of employers of labor.

Third. The third automatic feature is known as the automatic "In and Out Shift," which is a device embodied in the mechanism of the time recorder that shifts the time card holder so that the printing mechanism will record in the IN column or the OUT column, for instance, the IN column from 7 a.m. to 9 a.m., the OUT column from 12 to 12.30 at noon, the IN column from 12.30 to 2 p.m., again the OUT column from say 4 p.m. to 6.30 p.m., adjusted of course according to requirements.

This is an extremely important device to the employer of labor, as otherwise the shifting of columns has to be done by hand by the employee as he comes in or goes out. It not only means lost time making the shift, but the employer is also depending on the human element that the records be positively correct; which one cannot be assured of except it is done by the mechanism of the recorder for reasons that must be obvious.

Without this device, any and all employees have access to the placing of the time card so that it will print in either the IN or OUT column as the employee wishes, which is not a sound proposition, for the reason that amongst a number of employees, anywhere in the world, would be found one who might be termed mischievous or even malicious, and be anxious to have time records destroyed.

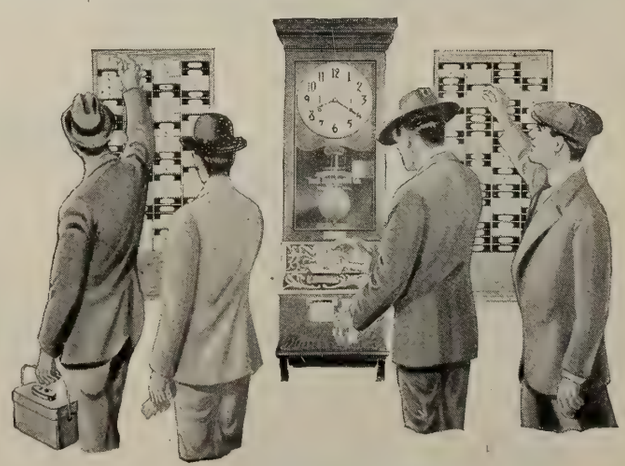
Each purchaser of a time recorder that lacks any of the three automatic features as described above has not a fully automatic time recorder of the card type; the lack of any one of these automatic features may be the cause of it costing the employer many times over what the automatic feature would have cost in the initial purchase.

We manufacture card recorders from $140 up, some of which have no automatic features whatever, and to the price of the basic machine, namely the non-automatic recorder, is added the cost of each automatic feature as desired.

INTERNATIONAL BUSINESS MACHINES CO., LIMITED

300 Campbell Ave. Toronto | Frank E. Mutton General Manager | also at Montreal, Winnipeg, Vancouver

(We also make Hollerith Electric Tabulators and Day'on Scales)



AN INTERNATIONAL FULLY AUTOMATIC CARD TIME RECORDER

The Automatic Dial Time Recorder

built by The International Business Machines Co. has exclusive Automatic features which put it in a class by itself

THE DIAL RECORDER. The dial recorder is a very much favored type of time clock, and has by far the largest percentage of sale, owing to its speed in operation, and its limit of number of employees that can use it, its cleanliness, and also the fact that no employee has access to the printed records. The fully automatic dial recorder has three distinct automatic features, which are indispensable to a complete time recording service

First, it has the automatic red color ribbon device, which will print all late records, or early leaving records in red, and which record is invaluable on account of the moral effect on the employee and the saving of time in computing the payroll.

Second. It also has an automatic feature known as the automatic column shift, which device moves the printing mechanism at the time designated so that it will print in the proper column, which is provided for each day's record of the week; for instance, when Monday's records have all been made, this device will shift the printing mechanism so it will record for Tuesday in another column, and so on.

This device is of great importance to the employer, owing to the fact that he knows he is not depending on any person or persons to see that this printing mechanism has been properly shifted, according to the set schedule.

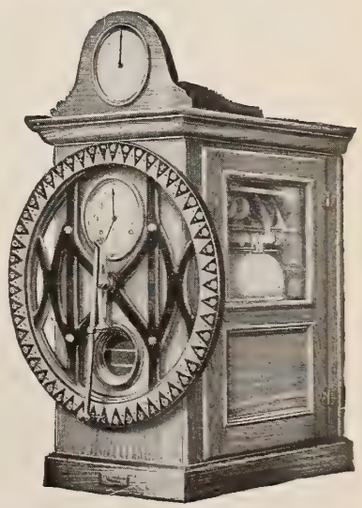
Third. The time recorder has also another automatic feature known as the "In and Out Column Shift," which device automatically shifts the printing mechanism so that the record will be printed for the IN records in their proper places, and the OUT records in their proper places, again eliminating the human element as to whether these records are properly placed or not.

Fourth. For every place of business having employees who are coming and going quite frequently, aside from the set schedule of starting and stopping work, we have what we term the "New International Dial," which is the last word in time recorders and one of the finest pieces of mechanism ever presented to the public. This machine has, as a fourth automatic feature, a device that makes it impossible for an employee to register on top of his previous record, and coupled with this device is also the fact that irrespective of automatic column features, and no matter when an employee registers, the record will be found in its right relative position. It is the only recorder in the world that will automatically place the records in their relative positions irrespective of when or how they are made.

The average number of employees operated on a time recorder to-day in manufacturing plants on this continent is 130, where a few years ago it would have averaged 175 to 200. This change has been brought about by the employer of labor recognizing the false economy of allowing too many employees to register on one recorder, as it causes congestion, it is mentally resented by the employees, and further it affects production, owing to the employees hastening away from their work so that they will be amongst the first to register out, so as to avoid that congestion.

The dial recorder is made in three sizes, for 50—for 100—for 150 employees, each employee being designated by a number on the dial of the recorder. The average size dial recorder purchased is of the 100 size, which again indicates the employer is recognizing that to have a recorder for each 100 employees is profitable indeed, and fair to the employees. We can clearly see the day coming when the average number of employees on a recorder will be 100, as it clearly tends to improve efficiency in a time recording equipment.

The Dial Recorder is manufactured in two types, namely, for a daily record and for a weekly record, and the one is selected which will fit in best with the method of bookkeeping or cost recording used by the firm installing same.



A FULLY AUTOMATIC INTERNATIONAL DIAL TIME RECORDER

Let Us Send You Our Literature And Prices

INTERNATIONAL BUSINESS MACHINES CO., LIMITED

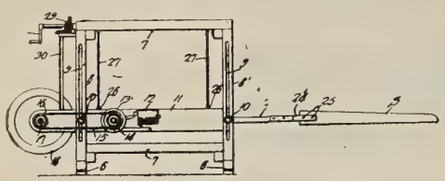
300 Campbell Ave.
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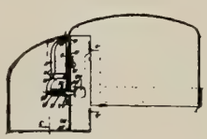
PATENTS FOR SALE



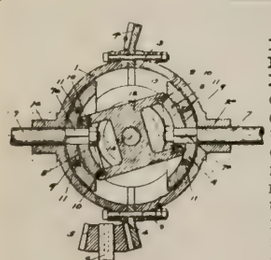
SAWING APPARATUS, a simple and easily operated mechanism, portable for convenience of felling trees or cutting logs. Is so constructed that the saw is reciprocating to make a cut and is constantly lowered so that the maximum cut at each movement is obtained. Patent for sale by Mr. A. Nelson, 246 E. Indianna Ave., Philadelphia, Pa.



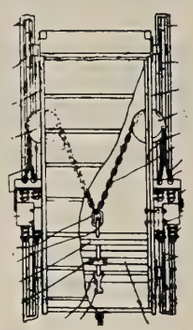
REAMER AND TAPER GAUGE, the very thing for which the mechanical world has been looking. This device is not only an adjustable, variable, taper reamer, but is also an **ACCURATE TAPER GAUGE.** This tool has been thoroughly tested and is beyond any question of experiment. The pat. holder, Mr. B. Hurd, 25 Ladd St., Portsmouth, N.H., is desirous of communicating with a reliable manufacturer with a view to negotiation for the manufacture of this invention in the Dominion.



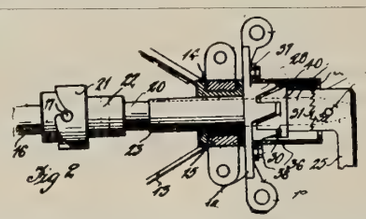
SLOW-FEED MANGER, having a storage compartment and means operated by the animal to insure a proper feed to the bowl from the storage compartment, simple in construction, efficient in use, but strong and durable and well adapted to stand the rough usage to which articles of this kind are ordinarily subjected to. Pat. for sale by J. I. Brown, 62 Jefferson St., Westfield, Mass.



DIFFERENTIAL MECHANISM, by means of which power may be transmitted to one or more revolvable elements, driving them together in the same direction at the same speed or in opposite directions. This device is considered by experts to be one of the best that has yet been brought to their attention. It is strong, durable and absolutely efficient in use. Pat. for sale by Mr. F. W. Seeck, care Lebanon National Bank, Lebanon, Ore.



SAFETY GRIPPING MECHANISM FOR ELEVATORS, strong, durable, simple in construction, safe and convenient in use, readily set up and comparatively inexpensive to manufacture, adapted to mine cars travelling upon an inclined track and controlled by a pulling cable, and will, in case of accident, grip the rails to retard the movement of the car. Pat. for sale by C. Fak, Box 161, Bush, Ill.



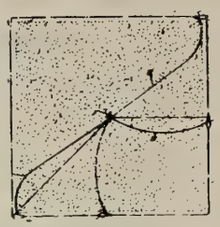
SAFETY CRANKING DEVICE FOR EXPLOSIVE ENGINES, a strong, durable and efficient cranking means, which will automatically free itself upon a retrograde movement of the engine shaft or backfiring of the engine, thus eliminating all danger. The device is simple in construction and absolutely efficient in operation. Patent for sale by J. J. Bush, 612 N. 11th St., Tacoma, Wash.



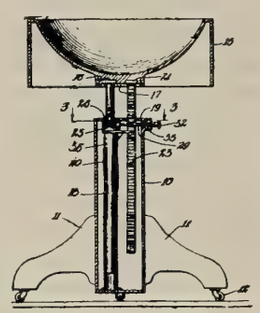
SLED, specially equipped with durable and efficient steering means and so constructed that the opposite sides may be shifted to varying positions with respect to the body, at the same time being maintained in parallelism with each other, and being securely placed. Patent for sale by S. S. Griffin, 1402 S. Durango St., Tacoma, Wash.



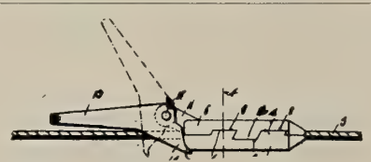
CLOTHES WASHING APPARATUS, simple and effective in use, easily operated, and may be constructed at a minimum cost. It operates both by pumping action and pounding action, thus insuring the best possible results. The inventor, Mr. W. Wilbur, Lynden, Wash., is open to negotiations in the disposal of his interests in this device.



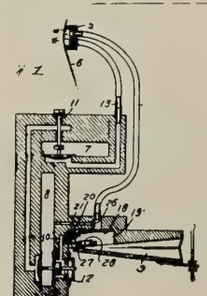
PROCESS FOR TREATING STANDING GRAIN, especially adapted for the prevention of rust on the plant after rains when conditions are such as to cause this blight. The process consists of means whereby the moisture may be shaken from the grain as illustrated above. For further particulars apply to J. Hanson, 109 N. 7th St., Montevideo, Minn., who offers patent for sale.



ADJUSTABLE STAND, convenient, simple, and attractive device, having means whereby the surface may be raised or lowered for the convenience of persons of different stature. Patent for sale by M. Tymczyna, Russel, Man.



CABLE CLAMP, a simple and convenient device, absolutely reliable, strong, durable and efficient in use, may be cheaply manufactured and placed on the market at a minimum cost with a very reasonable profit. Patent for sale by D. B. Steele, 21 E. 60th St., Seattle, Wash.



AUTOMATIC EXPRESSION CONTROL FOR PLAYER PIANO, which gives an absolutely perfect reproduction of hand playing, gets away from mechanical effect of the present devices now on the market. Patent for sale by Mr. M. S. Howard, Waukon, Ia.

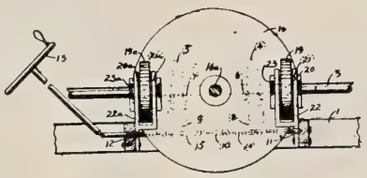


CREAM COOLER, a simple and efficient device, so constructed that it may be readily dismantled and cleaned, and that broken and damaged parts may be quickly and cheaply supplied. This device is one which should prove an attractive proposition, as it is the most practical device that has yet been given to the public. Patent for sale by T. E. Hooker, Dos Palos, Cal.

PATENTS FOR SALE

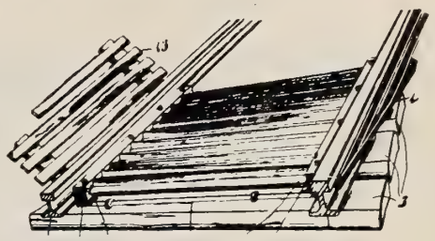


CALF WEANER, most efficient and humane device on the market. Note special features—adjustable lock nut, corrugations rendering durable, 2 in 1 spike and blab weaner, easy to remove, nose member is of hard rubber, does not in any way injure the animal, cannot get under it. Patent for sale by K. Lurz, Wall, S.D.



FRICTIONAL TRANSMISSION MECHANISM, particularly for use with tractors, quickly and easily adjusted to any desired speed for easy manipulation of tractor in any desired direction. May be manufactured and installed at a minimum cost. Patent for sale by A. J. Trigwell, 228 the Alameda, San Jose, Cal.

PATENTS
Trade Marks, Design Patents, Copyrights



CATTLE GUARD, for keeping animals from straying on a railroad or thoroughfare. This device is simple in construction, efficient in use and one which does not require any attention. The device is so constructed that should an animal try to pass it will become engaged with the device, which is sufficient to warn the animal to retire which will be allowed. Patent for sale by D. McMartin, Agardsley, Man.

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Valuable Report on Siberia

The report of the Canadian Economic Commission, Siberia, has just been issued from the Government Printing Bureau. This report covers 79 pages, including an index of subjects and geographical districts and contains a very comprehensive statement of agricultural, marketing, financial and transportation conditions. Considerable statistical information is furnished outlining the productive capacities of Siberian agricultural, fishing and timber industries, and lists of manufactured articles required in Siberia are provided. There is also a full outline of the operations of co-operative agricultural societies and their methods of financing shipments. The report is completed by a map showing the number of towns and railway connections. A copy may be had on application to the Commercial Intelligence Branch, Department of Trade and Commerce, Ottawa.

Visitor from New Zealand

A recent visitor at the offices of the Association was Mr. W. D. Munn, of Munn & Anstiss, Limited, manufacturers agents, Auckland, New Zealand, who has been arranging for new lines in both the United States and Canada. Mr. Munn states that the people of New Zealand are most favorably disposed towards Canadian goods and would gladly give them a preference, whenever possible, in making their purchases. He declares that conditions in New Zealand are good, the people being uniformly prosperous. Manufacturing is making some progress, though only in a limited number of lines and there are abundant opportunities for the sale of many kinds of manufactured products.

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Simcoe and Pearl Sts. TORONTO



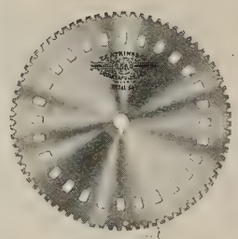
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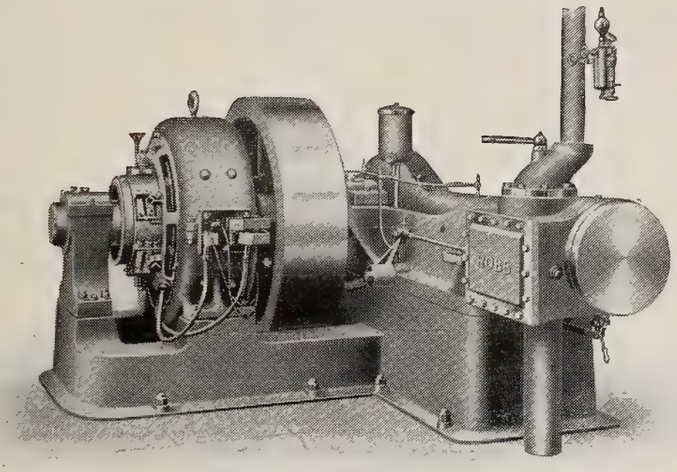
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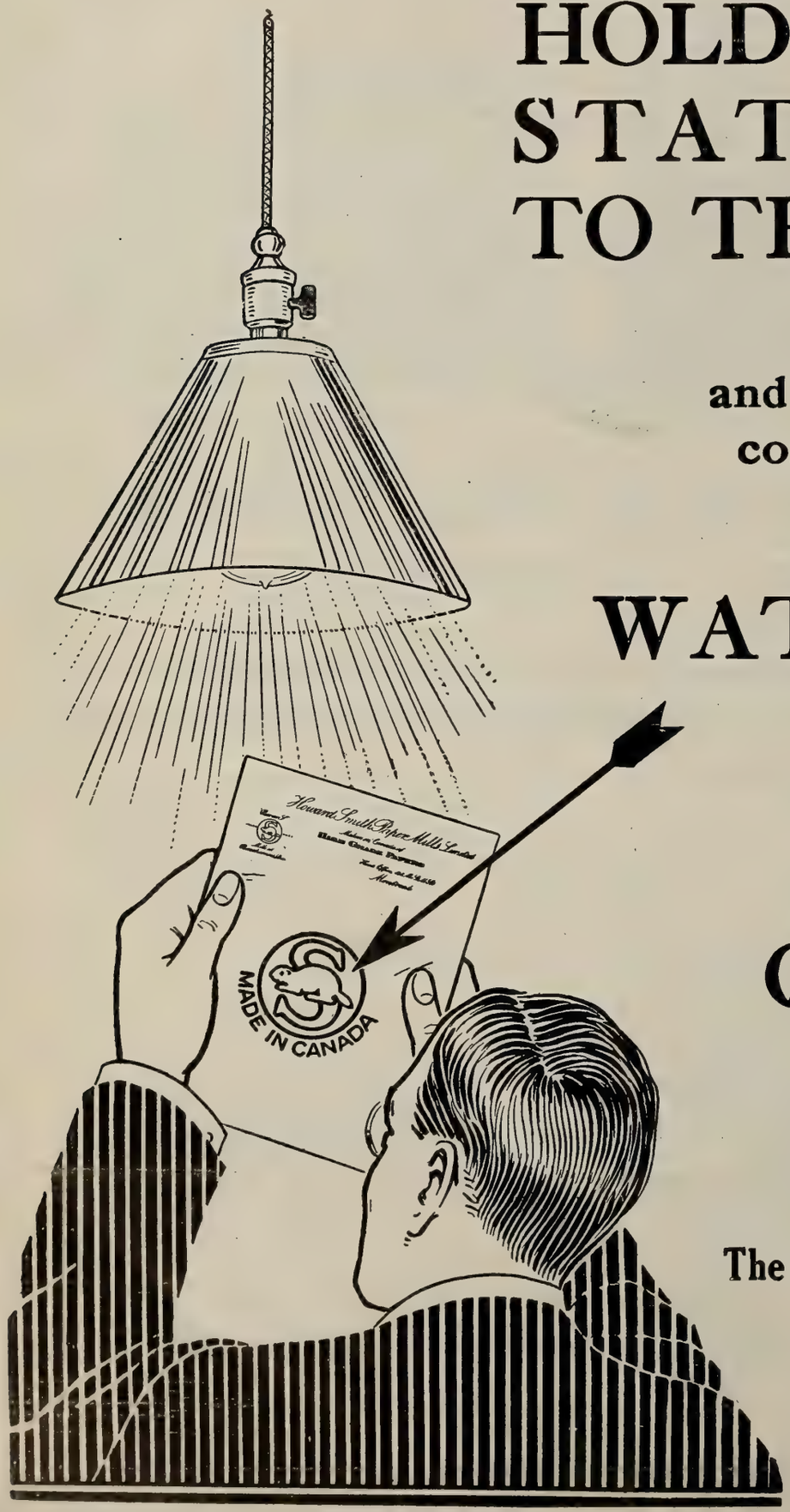
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OFFICE AND FINANCE

How to Charge Off Special Equipment

If You are Asking Yourself that Question or Have Any Doubts About it, You are Almost Sure to be Interested in This Article by the Superintendent of a Well-Known Plant

Reproduced from "Factory"

ONE of the big problems which will confront many managers in the next few years is that of the proper charge for carrying the new buildings which were erected during the war to increase the production of munitions and other Government supplies. That numbers of large eastern concerns have structures which they do not expect to utilize fully in the immediate future is quite well known.

Can the regular volume of present business and of business in prospect be expected to carry the extra burden of interest, taxes, and so on, on these vacant buildings and on their more or less complete equipment? If this burden is saddled on the price of new product, how will the product fare when it faces the competition of similar lines which are wholly free from such inflated costs? It will take a lot of courage to accept the situation as it really is and to decide it as it should be decided. The truth is that the buildings were erected, in part at least, as a speculative proposition.

How Charge Up Maintenance

Loyalty to country, patriotism, and desire to serve, all entered into the determination to build, but men with the energy necessary to accomplish such large results foresaw that perhaps they might not write off the entire cost of the buildings from the profits of the war business. They also foresaw the present situation. Now what must be done? Even if the buildings are paid for, there are maintenance charges to meet. From what fund will they be paid?

A recognized authority on the subject of factory management and operation, whose observations receive the attention of a large audience, wrote as follows a few years ago: "The product of a factory should bear only the expense used to produce it. It cannot bear the expense of idle machinery which did not contribute to its production. Although the owner may feel that he is entitled to interest on money invested even if not producing, it is coming to be recognized that idle capital is no more entitled to wages than idle labor." Doubtless the specialist would mention idle buildings or buildings partly idle were he to rewrite the paragraph to-day.

Many analogies have been drawn to illustrate this condition, but it seems that we may get a clear idea of the relation of partly or wholly unused facilities to those fully utilized by comparing them with something tangible and movable, like ships. We will assume that a man is in the ocean transportation business and that he has three vessels. When each of the three is regularly carrying full cargoes there is no question about charges.

But let us suppose that times change so that he is unable to secure business for one ship and that he takes her out of commission. What will happen if he adds her storage charges with interest and other expense to the price charged to the shippers who employ the two other vessels? Will they not patronize some other line?

Suppose that trade continues to fall off and, furthermore, that his second vessel is compelled to take harbor in a distant land, disabled, and in need of expensive repairs, and that it will take months to restore her to service. Will the owner attempt to increase the charges on his remaining vessel so that she will earn enough to cover the loss both on the ship which is out of commission and also the one which awaits repairs as a result of the storm?

Probably it would matter little what he attempted, for the shippers would soon indicate the only possible course for him. This would be to charge for the third ship just what he had always charged, with a little margin more if he could get it. But for the present the loss is on his capital account and no amount of juggling will alter the fact.

If he wants his books to show the real condition, his surplus will show the loss or his capital account will be reduced. The shipping man's patrons will not allow him to deceive himself for a single day. But there are no such prompt monitors for the manufacturer who hesitates to acknowledge the truth.

The manager of a large manufacturing plant, known to the writer, once stoutly declared that "The expense is there and it has to be paid." So, notwithstanding the best efforts of clearer thinkers, he persistently added increasing percentages of overhead as business fell off, until his soaring estimates on contracts drove away nearly all of his company's trade. He was so determined in his unwise course that he permitted subordinates arbitrarily to apportion unabsorbed charges to the estimates of the factory production department, while he in turn added a profit percentage to those already topheavy figures. The breaking out of the war in 1914 and the sudden termination of foreign competition was all that saved the concern from collapse.

The Element of Fair Play

It is difficult to understand why these men will delude themselves into travelling in such a vicious circle, but the practice continues despite the obvious fallacy of their reasoning. The element of fair play also enters somewhat into this situation.

Why should those who continue to patronize the concern in dull times be penalized by higher charges than they pay ordinarily? Have they not a strong incentive to make their purchases just as small as possible, or to look for another source of supply?

But not all calculations are made in that way, although many well-meaning accountants fail to recognize all the factors which enter into falling business conditions in so far as they affect the production department.

In well-managed plants the depreciation of machines falls to practically zero when they are not in use. The belts are thrown off and the machines are slushed down. Power consumption, oil, waste, and other charges are reduced. In extreme cases the assistant foremen are required to work on

BANK OF MONTREAL

Established over 100 Years

Capital Paid Up - - $20,000,000
Rest - - - $20,000,000
Undivided Profits, $1,812,854
Total Assets - $545,304,809

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COLLECTIONS made at all points in Canada and in foreign centres.

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Accounts of Merchants and Manufacturers solicited.

HEAD OFFICE - TORONTO

direct production and the shop clerical forces are reduced in proportion.

It is not a safe generalization to assume that the overhead continues practically the same in dull times as it is in busy times. A revision of figures may show a material reduction in a department where the value of the equipment is low and the operating costs are high, although there may be an actual increase in other departments.

It is a question whether the irregularities due to lack of exact information concerning these matters do not really cost more and entail greater loss eventually than the moderate expense of correct calculation. Boosting the overhead in dull times certainly does not smooth the path of the salesmen as they try to fill up the empty places in the production department. Again it may be much better to keep going, in order to keep an organization together, even without earning a profit for a time, than to permit accumulated charges to increase until they become alarming.

Cases are not unknown where managers have arbitrarily grouped unassociated departments together for no better reason than their desire to equalize the overhead. The automatic lathe department is sometimes joined with the hand turret lathe department so as to charge a part of the always high automatic department overhead to the much lower overhead of the hand-machine group. That sort of accounting would be ridiculous if it were not so serious. How it affects the costs charged against work done on the hand machines, which cannot be done on automatics, is too apparent to require mention.

Then we often find that the same overhead is charged against the vice hand in a department that is charged against the operator of an expensive machine. Asked why this is so, the accountant will declare that he is too busy to keep track of so many different rates and he has to "strike an average." Now any careful thinker knows that this so-called average may not be an approximation of the real costs.

Every Element is Considered

Is it possible for any method to be reasonably correct which does not recognize the actual facts as they exist in any single case? Many accountants now believe that the machine class rating will give results far more reliable than the other methods. Under this system every element is considered. Power, light, floor space, machine value, and supplies, all enter into the reckoning. The bench man also is charged with his better light, his floor space, his equipment, and his perishable tools.

But someone may object that a special machine which is seldom used may be put into a class by itself, and that a machine class overhead, if logically computed, would place such a burden on that machine's time that its use would be prohibitive. This might be true if the machine is used only one day out of six, but the principle of no pay for idle capital enters at this point. When it is known that the machine will be busy only one day out of six, its power and light consumption and its supplies of oil, belts, and so on, and the cleaner's and sweeper's time, should all be figured on that basis and not as if it were running full time.

Its depreciation also will be much slower than if it were running full time. To figure in some other way by attempting to balance the machine's unearned floor rental against an excessive depreciation, and then hope that the errors will not make enough difference to cause trouble, is taking liberties with chance.

A practical way of improving the situation would seem to be to secure more work which may be done on the machine. If it were procured through someone's mistaken judgment and, though it will never fully pay for itself it seems unadvisable to discard or sell it, a wise course would

be to write off a large part of the first cost, charging it to profit and loss or expense, and then proceed on a rational basis of charge for the time the machine is used. A subordinate naturally hesitates to suggest such measures to the critical manager, especially if the man who should make the suggestion is responsible for the mistake. But sound business principles do not take account of individual preferences.

The writer knows of a prominent plant where the overhead in the automatic department was figured extremely high. It was decided to install twelve hand turret lathes to increase the output by taking light finishing cuts on the work and thus permit the automatics to run without frequent stops for small readjustments of the cutting tools.

The small machines were under the supervision of the automatic department foreman and they were actually a part of that department. But in order to avoid the excessive overhead which would have been placed on them by the accounting practice prevailing there, had they been assigned to the automatic department, the fiction of a separate department with a much lower overhead was established. Thus the correct result was secured by an unbusinesslike subterfuge.

Many a time the writer has seen a profitable contract go to a competitor whose figures were only a small percentage lower than his, even after the padding had been innocently administered by the manager. His protests have sometimes been heeded and sometimes they have not, but the average purchasing agent who makes contracts involving large sums has a way of squeezing out the inflation and of getting right down to hardpan.

These purchasing men know that selling expenses are large, so they aim to do their business in such a way that the cost of making a sale to them is just as low as possible. They are not interested in the size of the sales department of the firm they patronize or in the cost of running it. They understand that the cost of making a large number of small sales is high and that that cost must be met; but they also know that the cost of selling them a large order is very often less than that of selling a smaller buyer a much smaller bill. So they will not allow the same percentage of selling expense to go against their houses. Of course this refers to special contracts, not to negotiations for one-price articles.

Good Judgment Needed

Good judgment is so clearly demanded in estimating that the arbitrary methods of the past must be discarded if business is to be done on equal terms with competitors. It matters much to-day how the special equipment necessary to perform a contract is charged when the estimate is made.

For instance, if some apparatus is required which it is reasonable to suppose will be used on other work, it is most unwise to write its whole cost into a single estimate. For if it is to be made by the contractor, the charge will usually include the full direct cost of labor and material, plus the department overhead, plus the general selling expense, plus administrative expense, plus a profit based on a certain percentage of the sum of these several charges. All of this the prospective purchaser is asked to pay.

Would it not be far better judgment to charge such equipment to either expense or capital, as the case warrants, and then to place only a small part of the cost, without all the extras, on the purchaser?

But someone says that is speculating on the future. Is not all business speculation in part? Good sense is required in such matters, for if a plant is not fairly equipped to fill a contract, that contract will certainly go to one that is.

The purchaser is not interested in plants which cannot meet his needs. He wants to do business with those which can. And he is seldom willing to pay a very large part of

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PAID-UP CAPITAL - - - $15,000,000
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82A

The Merchants Bank of Canada

Head Office, MONTREAL Established 1864

Paid-up Capital	$ 7,000,000
Reserve Funds	7,574,043
Total Deposits (October 31st, 1919)	165,000,000
Total Assets (October 31st, 1919)	198,000,000

President: Sir H. Montagu Allan, C.V.O.
Vice-President: K. W. Blackwell
General Manager: D. C. Macarow
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Many of the large Corporations and Business houses who bank exclusively with this institution have done so since their beginning. Their banking connection is for life—yet the only bonds that bind them to this bank are the ties of service, progressiveness, promptness and sound advice.

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MERCHANTS BANK CONTINUES TO GAIN

Statement for Half-Year Gives Total Assets of $198,506,572
A NEW RECORD

Deposits Gain $30,117,802

The Balance Sheet of the Merchants Bank of Canada as at the end of the half-year period, 31st October last, received from the Bank's headquarters here on Saturday, shows continued gains and growth on the part of this well-known financial institution.

The Total Assets have now reached the commanding figure of $198,506,572, an increase of $32,582,136 over the corresponding date last year. The readily available portion of the Assets amounts to $84,014,965, an increase of $11,566,688, by which is shown that the liquid position of the Bank has been well maintained.

That the Bank has continued to do its full share, both to the Government and the Commercial Community is shown by an increase of $4,682,244 in securities held of the Dominion and Provincial Governments, while Current Loans and Discounts in Canada have increased by $19,435,478 during the 12 months' period.

Note Circulation at $15,827,373 is $647,130 higher than a year ago with the issue in excess of Paid-Up Capital more than covered by a Deposit of $8,000,000 in the Central Gold Reserve.

The Deposits amount to $166,006,015, against $135,888,213 on October 31st, 1918, being an increase for the period of $30,117,802, of which gain $19,368,746 was in Savings or Time Deposits and $10,749,056 in Deposits payable on Demand—a basis of progress which cannot but be considered satisfactory.

The statement altogether makes very good reading for those who realize the important part that our Chartered Banks play in the well-being of the whole country, industrial as well as agricultural, and the figures are especially interesting, as the period covered, with the exception of 11 days, has been after the date of the Armistice and clearly demonstrates that our large and well-managed financial institutions are continuing their progress and growth on a solid basis with the war a thing of the past.

The main features of the figures of October 31st, 1919, and October 31st, 1918, compare as follows:

BALANCE SHEET
As At 31st October

THE MERCHANTS BANK OF CANADA

STATEMENT TO THE DOMINION GOVERNMENT (CONDENSED)
31st OCTOBER

LIABILITIES

	1919.	1918.
Capital Paid Up	$8,341,535 30	$7,000,000 00
Reserve Fund	7,000,000 00	7,000,000 00
Undivided Profits	574,043 32	437,973 92
Notes in Circulation	15,827,373 00	15,180,243 00
Deposits	164,302,874 18	133,955,910 26
Due to other Banks	1,703,141 06	1,932,303 36
Acceptance under Letters of Credit	757,606 04	418,006 30
	$198,506,572 90	$165,924,436 84

ASSETS

Cash on hand and in Banks	$25,642,136 33	$20,641,022 76
Deposit in the Central Gold Reserve	8,000,000 00	8,500,000 00
Government and Municipal Securities	36,240,352 41	31,558,108 80
Railway and other Bonds, Debentures and Stock	3,870,611 91	3,933,373 19
Call Loans in Canada	6,843,017 57	4,916,574 22
Call Loans elsewhere than in Canada	3,418,846 99	2,899,198 62
	84,014,965 21	72,448,277 59
Loans and Discounts	106,254,280 80	86,818,802 28
Liabilities of Customers under Letters of Credit per contra	757,606 04	418,006 30
Bank Premises	5,663,251 73	5,218,862 63
Real Estate other than Bank Premises	911,291 19	333,872 24
Mortgages on Real Estate sold by the Bank	528,177 93	320,615 80
Deposit with Dominion Government for purposes of Circulation Fund	377,000 00	366,000 00
	$198,506,572 90	$165,924,436 84

the cost of fitting them out. It is better not to bid on a contract at all than to send in a bid so high that it tells a story of inadequacy in the bidder's plant.

Branch in Paris

Park-Union Foreign Banking Corporation Has Placed a Branch in French Capital

Announcement is made by the Park-Union Foreign Banking Corporation, the international bank with which the Union Bank of Canada is associated, that a branch was opened on November 10 in Paris, France, under the management of Mr. George Alfred Carrere. The branch is located at the corner of the Rue Taitbout and the Boulevard des Italiens. This constitutes the fifth branch of the corporation, the others being in Seattle, San Francisco, Shanghai and Yokohama, with head office at 56 Wall Street, New York.

Progress of Merchants Bank

Substantial Gains Are Recorded at the End of the Half-Year on October 31

It has now become customary for the banks to present half-yearly balance sheets, a practice which enables customers and the public generally to keep more closely informed on the progress of these institutions. The half-year of the Merchants Bank of Canada ended on October 31 last, and the statement since issued gives convincing proof of the stability and growth of this particular institution.

It is extremely gratifying to note the splendid expansion in assets, which between October 31, 1918, and October 31, 1919, grew by $32,582,136 to $198,506,572. Of this total, $84,014,965 represents readily available assets, these being $11,566,688 greater than a year ago. During the same period, deposits increased from $135,888,213 to $166,006,015, of which gain $19,368,746 was in savings or time deposits and $10,749,056 in demand deposits.

Both the items, call loans and loans and discounts, show good increases, witnessing to the part played by the Merchants Bank in furthering the business interests of the country. Call loans in Canada were up from $4,916,574, to $6,843,017 and call loans abroad from $2,899,198 to $3,418,846. Loans and discounts expanded from $86,818,802 to $106,254,280. Altogether the statement is one of which the bank should have every reason to be proud and should be a source of confidence to all who have dealings with it.

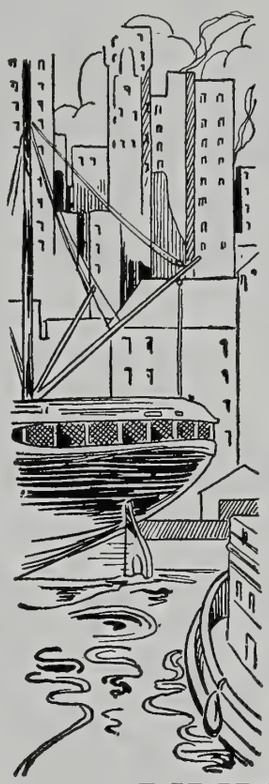
Car Earnings Drop

Very Considerable Reduction in Profits for Fiscal Year Ended September 30

As might have been expected, earnings of the Canadian Car & Foundry Co., Limited, during the transition period from October 1, 1918, to September 30, 1919, were less than those during the last year of war. In figures they show a reduction from $3,252,608 to $1,887,634, both amounts being subject to Government taxes. Out of the latter sum, dividends of 8¾ per cent. were paid on the preference stock, while adding in the previous year's surplus, the amount carried forward was $7,061,556.

The directors, in their report to the shareholders, regard the results as satisfactory. Aggregate sales were $33,000,000 with business practically all in the regular lines of the com-

San Francisco



THE GOLDEN GATE TO THE EAST

FROM San Francisco Bay, the largest harbour on the Pacific coast of the United States, sail the ships that carry the exports of Canada and the United States to Hawaii, Australia, China, Japan, the Philippines, Mexico and Central America.

San Francisco is the Golden Gate to the East; a city of pluck and romance. Almost destroyed, it arose from its ashes and in three years re-built the modern, progressive and important city of to-day.

To exporters and importers, San Francisco should be kept in mind.

Through our direct connection with the Park-Union Foreign Banking Corporation, having branches in San Francisco and Seattle on the Pacific coast; in Shanghai in China; Yokohama in Japan; in Paris, France; our own New York agency at 49 Wall St., and our two branches in London, Eng., we are able to offer every banking facility for the transaction and extension of foreign business throughout the world.

Our officers will be glad to advise Canadian business men regarding their foreign trade activities.

UNION BANK OF CANADA

Park-Union Foreign Banking Corporation jointly owned and controlled by National Park Bank of New York and Union Bank of Canada

382

THE ROYAL BANK OF CANADA

Capital Paid Up	$14,000,000
Reserve and Undivided Profits	15,500,000
Total Assets	427,000,000

HEAD OFFICE - MONTREAL

BOARD OF DIRECTORS:

Sir Herbert S. HOLT, Pres. E. L. PEASE, Vice-Pres
E. F. B. JOHNSTON, K.C., 2nd Vice-Pres.

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G. R. Crowe	A. E. Dyment
D. K. Elliott	C. E. Neill
Hon. W. H. Thorne	Sir Mortimer B. Davis
Hugh Paton	G. H. Duggan
Wm. Robertson	John T. Ross
A. J. Brown, K.C.	R. MacD. Paterson
W. J. Sheppard	W. H. McWilliams

OFFICERS

E. L. Pease, Man. Director, C. E. Neill, Gen. Manager; F. J. Sherman, Asst. Gen.-Manager; M. W. Wilson, Supt. of Branches.

Branches in every Province of the Dominion of Canada and in **Newfoundland**; in **Havana** and throughout **Cuba**, Porto Rico, Dominican Republic, Costa Rica, and Venezuela; **Antigua**, St. John's; **Bahamas**, Nassau; **Barbados**, Bridgetown, **Dominica**, Roseau; **Grenada**, St. George's; **Jamaica**, Kingston; **Montserrat**, Plymouth; **Nevis**, Charlestown; **St. Kitt's**, Basseterre; **Trinidad**, Port of Spain and San Fernando; **British Guiana**, Georgetown, New Amsterdam and Rose Hall (Corentyne); **British Honduras**, Belize.

SPAIN, Barcelona—Plaza de Cataluna 6.
LONDON, England, OFFICE—Princes St., E.C.
NEW YORK AGENCY—Cor. William and Cedar Sts.
(Savings Department at all Branches.)

pany's products. In the previous year the aggregate was $45,000,000, of which one-fourth was munition work. Reporting on the outlook, it is stated that the car company has orders on hand which will carry it into next year, but after that the future is uncertain. Serious thought is being given to diversifying the output from the various plants. New lines are being considered. It is improbable that further shipbuilding orders will be taken. The condition of plants is generally satisfactory, and the financial position is also satisfactory, with no indebtedness to any bank.

A Gratifying Statement

Bank of Montreal's Annual Report Shows Readjustment to Post-War Conditions

Special interest attaches to this year's annual statement of the Bank of Montreal, because it shows how satisfactorily this great financial institution is meeting peace conditions. The Bank's year ended on October 31st, which means that nearly the whole period has been spent under the new conditions. During the war the Bank assumed heavy commitments to assist the financing of the Dominion and Imperial Governments. Since the Armistice was signed, trade and manufacture have received special attention through the medium of current loans.

As might have been expected, there has been a decrease in total assets, though this was experienced during the first six months of the year. Since then assets have shown a substantial growth. At October 31st total assets stood at $545,304,809, as compared with $558,413,546 a year ago and $489,271,197 at April 30th.

While the various readjustments were being effected, a strong liquid position has been consistently maintained, and as a result liquid assets amount to $337,980,858, being 67.99 per cent. of the liabilities to the public. The expansion that has occurred in trade and commerce is reflected by an increase in current loans of approximately $18,000,000 and these now amount to $164,182,591, as compared with $146,028,861 a year ago.

The various campaigns for thrift, which were inaugurated during the war period, are also apparently having a good effect. As a result, deposits bearing interest have gained to $312,655,964, as compared with $268,167,111, at the end of the first six months. Deposits not bearing interest also show a gain and now stand at $129,946,641, up from $124,736,111, at the end of April last.

Since the close of its last fiscal year the Bank has also completed, without inconvenience to the public, the absorption of the Bank of British North America, both capital stock and rest account being increased to $20,000,000 respectively, as compared with $16,000,000.

The Profit and Loss Account, in turn, reflects the larger business handled, and the total profits for the year amount to $3,314,227, or 16.57 per cent. on capital.

Branch in Buenos Aires

Royal Bank of Canada has Announced Opening of a Branch in Argentine Republic

C. E. Neill, General Manager of the Royal Bank of Canada, announced on November 10 the opening of a branch in Buenos Aires, Argentine. It will be under the management of Mr. T. F. Diver, late manager of the branch in Barcelona, Spain, and formerly supervisor of Cuban branches. The Royal Bank now has 68 branches in the West Indies, Central and South America.

There is no such a condition as "holding your own". You are either in a worse or better condition than a year ago. Our staff of specialists can assist you to progress. Write to-day

Thorne, Mulholland, Howson & McPherson

INDUSTRIAL ADVISORS

Bank of Hamilton Building Toronto, Ont.

Established 1849

BRADSTREET'S

Capital and Surplus - - $1,500,000

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Executive Offices: Nos. 346 and 348 BROADWAY, N.Y. CITY, U.S.A.

The Bradstreet Company gathers information that reflects the financial condition and the controlling circumstances of every seeker of mercantile credit. Its business may be defined as of the merchants, by the merchants, for the merchants. In procuring, verifying, and promulgating information, no effort is spared, and no reasonable expense considered too great, that the results may justify its claim as an authority on all matters affecting commercial affairs and mercantile credit. Its offices and connections have been steadily extended, and it furnishes information concerning mercantile persons throughout the civilized world. Subscriptions are based on the service furnished, and are available only by reputable wholesale, jobbing and manufacturing concerns, and by responsible and worthy financial, fiduciary, and business corporations. Specific terms may be obtained by addressing the Company at any of its offices. Correspondence invited.

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Halifax, N.S. Ottawa, Ont. Quebec, Que.
Montreal, Que. Toronto, Ont. Vancouver, B.C.
St. John, N.B. Winnipeg, Man. Calgary, Alta. Victoria, B.C. Sydney, N.S.

THOS. C. IRVING, Gen. Man. Western Canada, Toronto

EXPORTERS OF

Reed Organs, Piano Stools, Music Cabinets.

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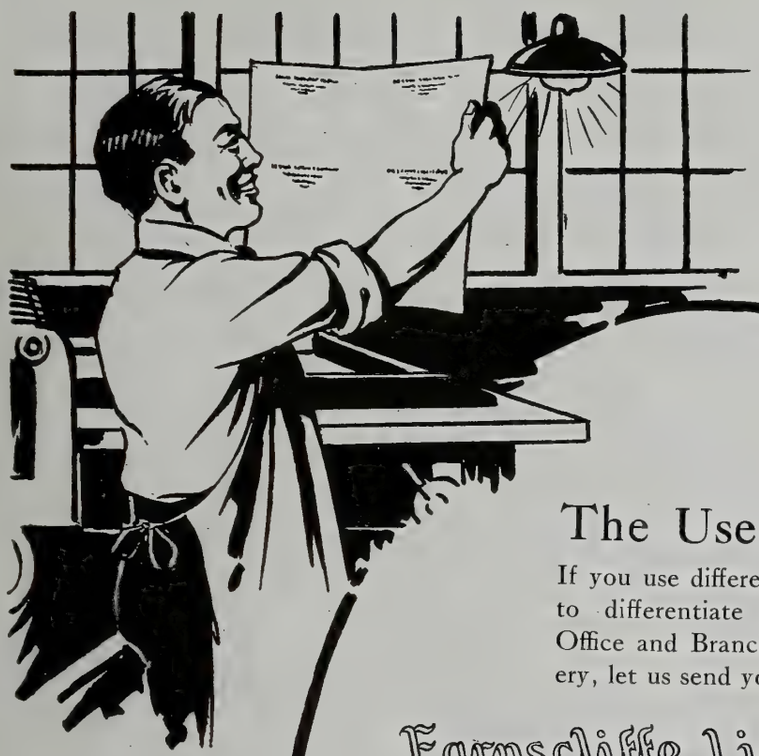
The Goderich Organ Co. Limited

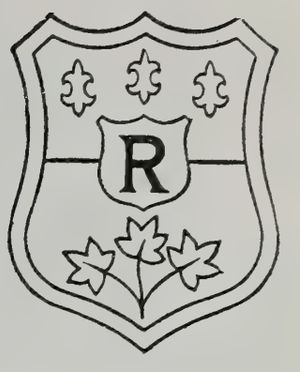
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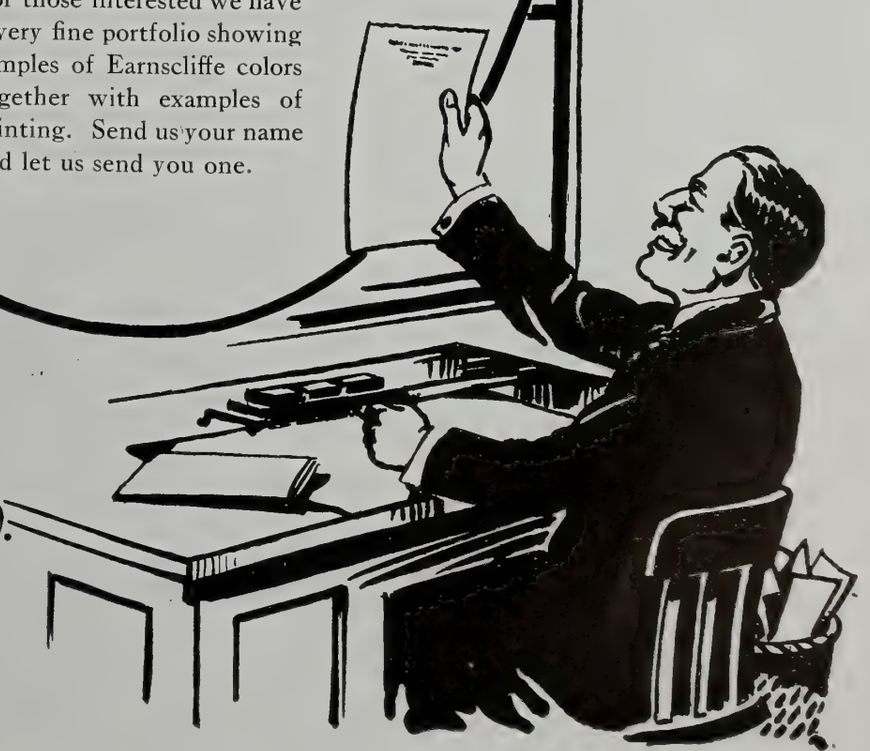
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White and Eight Tints

Previous to date "**Earnscliffe,**" which has been known to buyers for years, was made in White, Azure and Buff only. It is now made in the following:

WHITE, AZURE, BLUE, PINK, BUFF, GOLDEN ROD, GREEN and RUSSET

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The Rolland Paper Co.
Limited
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But your filing clerk? She isn't fortunate enough to be able to look at it in such an easy, buoyant manner. With her it's a serious part of routine.

She knows that when you ask for a certain paper you want it quickly, without any waste of time.

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"Office Specialty" Systems of Filing and Record Keeping are fundamentally right. A proper principle of organization underlies each one of them. Each system is designed for a specific purpose and it achieves that purpose in a way that extensive study has demonstrated to be the best.

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Only a medium-priced stock that with proper treatment will make up into most attractive stationery.

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ENVELOPE MANUFACTURERS AND PAPER DEALERS

Toronto Brantford Winnipeg Calgary Vancouver

CANADA'S INDUSTRIAL EXPANSION

Continued from page 71

Another Paper Mill

Price Brothers & Co., Limited, Decide Upon Erection of Another Mill in Saguenay District

An announcement has been made by Sir William Price, president of Price Bros. & Co., Limited, Quebec, that the directors of his company have decided upon the erection of another paper mill. This will be erected at a point three or four miles east of Chicoutimi, where a new town called Saguenay will be laid out. There the mill will be on tide water. Sir William Price's statement was as follows:

"My board has definitely decided to start without delay on a large newsprint mill in the Saguenay district, with a capacity of between four and five hundred tons. Work has already been started on the necessary waterpower, and by May of next year construction of the mill will be under way.

"A further machine is now being erected in our Kenogami mill. This machine would have been working now had it not been for the strikes in England. This brings our present output up to 270 tons, or, including Jonquiere, 325 ton, per day of paper and board, in addition to sulphite pulp. When our new plant is operating, our total output of paper and board will be in the neighborhood of 800 tons per day."

It has also been announced that the same company will erect another big sawmill at Matane.

From Munitions to Motors

Willys-Overland, Limited, Have Made Rapid Progress in Changing Over Plant

The progress made by Willys-Overland, Limited, West Toronto, in transforming their factory from a munitions plant to its present stage of peace production affords another instance of the way in which Canadian manufacturers are meeting changed conditions. During the war, the entire plant was devoted to the construction of airplane motors and munitions, and with the cessation of this work immediate steps were taken to manufacture automobiles. The decision was made to concentrate, at least at first, upon the new light model Overland 4, which had undergone exhaustive tests and was calculated to revolutionize the motor car industry through the introduction of the "three-point suspension springs," which it had been proved would give the most surprising riding qualities.



Mr. J. G. Perrin
Assistant General Manager, Willys-Overland, Limited



Putting on the Finishing Touches
Scene in the Willys-Overland plant as the new light model Overland 4 comes down the runway

Mr. T. A. Russell, who became president and general manager this year, surrounded himself with able executives and technical experts, whose total factory and office staff last May numbered only 229. Gradually, yet with rapidity, machinery was installed and sources of steady supply of raw material established, so that each month the company was able to use additional men. Within a few months, actual motor car production was reached, and within the past few weeks it has attained a quantity that ensures it as a permanent and growing industry. At the middle of November, the number of employees had increased to nearly 1,300, all their efforts being directed to the production of the Overland 4. The new car has had a favorable reception from one end of Canada to the other, and as contracts already made are sufficient to keep the factories busy for a year or more, Willys-Overland, Limited, promises to take its place permanently among Canada's leading industries.

Increase Payroll 50 per Cent.

Guelph Carpet & Worsted Spinning Mills, Limited, Make Important Plant Additions

Considerable enterprise is being shown at the present time by the Guelph Carpet & Worsted Spinning Mills, Limited, one of the largest textile industries in Canada. Since the amalgamation early this year of the Guelph Carpet Mills Co., Limited, and the Guelph Worsted Spinning Co., Limited. under the new name and management, the Company have made rapid progress and many improvements are noticeable. Recently new offices and showrooms were built on an elaborate scale, and now the work is just being completed on a large extension to the worsted spinning department. The cost of the new plant and machinery is over $300,000, and will be in operation in the spring.

The present plant in full operation employs 400, whilst this new development will increase the payroll about 50 per

Steel Building For Sale

Tenders will be received up to 15th December next, by the subscribers, subject to previous sale, for the purchase of the Steel Building 300 ft. long, 100 ft. wide and 32'6" in height from floor to eaves, 38'9" at peak, and containing approximately 640,000 lbs. Structural Steel, now standing on the property formerly owned and operated by the Nova Scotia Car Works, Ltd., in the City of Halifax, and used by them as a Steel Erecting Shop.

The Building Measures 300 ft. by 100 ft.

——Consisting of 20 panels, 15 ft. centres making a total length of 300 ft. and width of 100 ft.

Each panel consists of two outside columns, 10 x 10 H. Steel Bars, 49 lbs., also centre columns H. Steel 12 x 12, 71.6 lbs.

Purlines consist of 18 6" I. Beams, 12.25 lbs.

Side Channels 12 5" I. Beams, 6.5 lbs.

The Roof Truss is made up of angles, approximately, 2½ x 2" x 5/16".

There is a double set of Crane Girders down the length of the building as follows:

2 24" I. Beams, 80 lbs. with 18" Channels, 15 lbs., these I. Beams are fastened to the Columns with Steel Brackets.

The Building to be taken down and removed from its present site before 1st March, 1920. Any further particulars desired will be furnished on application. The lowest or any tender not necessarily accepted.

Canada Corporations, Ltd.

Cor. Hollis and Prince Streets, Halifax, N.S.

cent., enabling this institution to claim the premiership in the country of its kind. Besides manufacturing woollen and worsted yarns of all grades and qualities on a large scale, used for all purposes in knitted garments by the numerous knitting mills in the Dominion, they are extensive manufacturers of floor coverings in tapestry, velvet, Axminster, Brussels and Wilton designs.

Knitting Mills Being Enlarged

Two Mills of Penmans, Limited, in Quebec Are Being Extended to Meet Trade Requirements

Due to increased demand for the company's goods both for home and foreign consumption, Penmans, Limited, manufacturers of knit underwear and hosiery, are at present making additions to their mills at Coaticook and St. Hyacinthe, Quebec. The former extension consists of a three-storey erection, 60 by 100 feet approximately. The latter is 25 by 40 feet, two storeys high. Both are of brick, standard mill construction and sprinklered throughout.

Mr. I. Bonner, general manager, reports that with the exception of one or two lines, the demand for the company's product is good. Export business developed to date is such as to keep the mills fairly well occupied all the time; in fact, some of them are booked for a number of months ahead. In certain underwear and hosiery lines, production is entirely limited to the quantity of help available, which in Ontario is a very serious matter at the present time.

More Space Needed

In Anticipation of Increase in Export Business, Bicycle Manufacturers Tack Addition to Plant

An extension, which will add approximately 16,000 square feet of floor space to their plant at Weston, Ont., is being erected at the present time by the Canada Cycle & Motor Company, Limited. The company's plant is of the modern, one-storey, saw-tooth-roof style of construction and the addition will harmonize with the original building. It is expected that the work of erection will be completed before the end of the year.

Expanding export business is the reason back of the enlargement. The company have always done more or less foreign business and indications now are that this department will grow to such an extent in the next few years that greater manufacturing facilities will be needed. On completion the addition will be utilzed for storage purposes, though it will be gradually absorbed in the manufacturing end as the need for space arises.

Clothing Manufacturers Build

Capacity of Plant of W. E. Sanford Mfg. Co. at Hamilton to be Increased by New Erection

With the object of improving working conditions and increasing production, the W. E. Sanford Manufacturing Co., Limited, Hamilton, are erecting a new building in the vicinity of their plant at King and John streets. The new structure is 40 x 140 feet, three storeys high and of reinforced concrete construction. It is being built entirely for manufacturing purposes and will be ready for occupancy about January 1. While erected primarily for the better housing of employees

Tweed, ONT.

IDEAL LOCATION for MANUFACTURING Hydro Electric Power—Good Shipping Facilities, C.P.R. and C.N.R. Free Taxation Factory for Rent now.

Write Secretary, Board of Trade, for Particulars

REES' RoTURBo
PUMPING MACHINERY

Is used the world over in Modern Industrial Plants, Power Stations, Waterworks, Mines, Pulp and Paper Mills, Salt and Chemical Plants, where highest efficiency, reliability and high-class engineering are demanded.

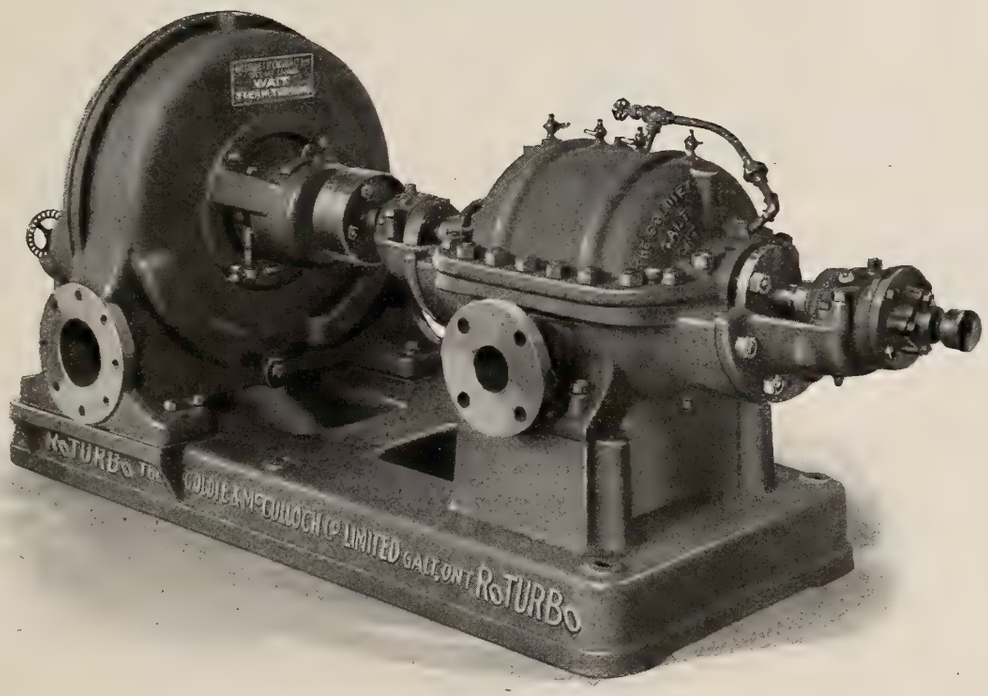


Illustration shows a REES' RoTURBo Multi-stage Pump direct connected to Goldie & McCulloch "WAIT" Steam Turbine, recently built for the Salts & Potash Co. of Canada, Limited, for pumping brine.

REES' RoTURBo Pumps provide a very high and sustained efficiency over a wide range of duties which means a saving in power costs. The self-regulating feature of RoTURBo design is responsible for this saving, and this same feature protects your prime mover from overloads on a decreased pressure head, eliminating expensive delays and costly repairs.

Catalogues and complete details mailed to those interested on request.

THE GOLDIE & McCULLOCH CO., Limited

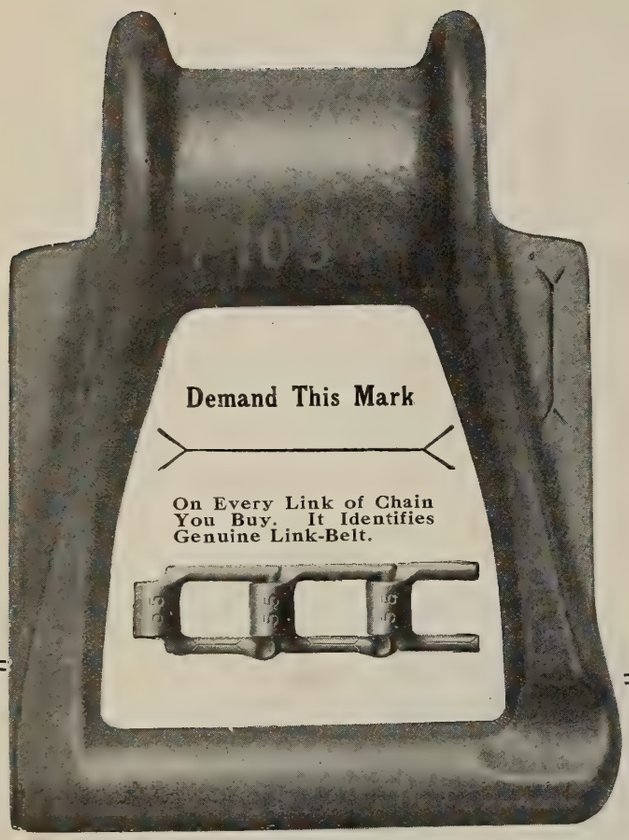
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Original Ewart LINK-BELT

We are the original manufacturers of this type of Link-Belt, and have been manufacturing it in ever-increasing quantities for nearly half a century. Our product always has been, and is to-day, recognized as the standard.

This is just one of the many types of Link-Belt which we make in Canada for every service in all classes of manufacturing plants. We carry the widest variety of sizes and have the most extensive available stock of any concern in Canada.

Write us about your requirements.

CANADIAN LINK-BELT CO., LTD.

Wellington and Peter Streets

TORONTO

Also carried in stock at 1195 St. James Street, MONTREAL, Que.

and so that manufacturing might be carried on under improved conditions, the building will naturally give greater capacity for production and the company expect an increase in output of about 10 per cent. At present they have all the business they can attend to. Great difficulties are reported in securing materials and, owing to the shortage of skilled labor, manufacturing is retarded. Both conditions militate against their being able to engage in export trade to anything more than a limited extent.

Partridge Rubber Expands

Expect Shortly to Increase Number of Hands in Guelph Factory from 350 to 500

When an extension now under way is completed, the F. E. Partridge Rubber Co., Limited, of Guelph, will augment the number of its employees from 350 to 500. The addition to the building is 100 x 60 feet, four storeys high. This company have had a very rapid growth. Organized in Montreal in 1915, the plant was transferred to Guelph in 1916. It at first occupied a small building but additions have been made almost continuously until the company now occupy a modern five-storey structure. Besides making the Partridge line of tires and rubber tubes, the company manufacture a complete line of rubber sundries, including hot water bottles, tobacco pouches, etc., the daily output being 475 tires, 600 tubes, 500 hot water bottles, and 1,000 tobacco pouches. With the increased facilities for manufacturing, the company soon hope to increase their daily output to 800 tires with a proportional increase along other lines.

Toric Lenses Now Made in Canada

Imperial Optical Co., Toronto, Now Manufacturing These Lenses on Factory Basis

The Imperial Optical Co., Toronto, have built and installed 40 automatic multiple Toric lens grinders, and polishers, and are now manufacturing these lenses on a factory basis production, using the same methods as those employed by the largest lens grinding manufacturers in the United States. They are figuring on putting an addition to their present building to accommodate additional machinery for lens grinding.

Adding to Plant

Otto Homuth of Preston, Ont., is Erecting Building for Storing and Grading Rags

Additions to the plant of Otto Homuth, manufacturer of woolen shoddies and grades of woolen rags, Preston, Ont., are being made at present. These consist of a building, 100 x 45 feet, two storeys high, mill construction, to be used for the storing and grading of rags and a boiler house 37 x 37 feet with 65-foot cement chimney. Mr. Homuth intends to instal a 75 h.p. boiler for heating both the new building and the present plant, and he expects to have the enlargement completed before the end of the year.

Progress at Ojibway

Canadian Steel Corporation Have Made Good Start this Year on Their Big Plant

Considerable work of a preliminary nature has been accomplished at the site of the Canadian Steel Corporation's projected plant at Ojibway, Ont., this year. A number of underground sewers and drains have been laid; a considerable amount of permanent and temporary railroad tracks has been constructed and a vessel slip and docks built. The slip is 2,400 feet long, 202 feet wide, with 23 feet depth of water. The dock is all massive concrete work, upon 75 and

By Product Coke

Hamilton Pig Iron

Open Hearth
Steel Billets

Steel and
Iron Bars

Open Hearth
Steel Sheets

Quality

Drop
Forgings

THE
STEEL COMPANY
OF
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HAMILTON MONTREAL

Service

Railway
Fastenings

Wrought
Pipe

Pole Line
Hardware

Screws & Nails

Bolts Nuts & Washers

Wire & Wire Products

80-foot piles driven to rock; it will be completed, with the exception of dredging, this fall. Excavations have been made for four blast furnaces and the foundations are practically completed for two. All foundations are supported upon piles driven to rock. The contract has been let for the steel work for two blast furnaces and is now in the shops for fabrication. The steel work for the permanent machine shop and field fence shop is also being fabricated. It is the hope of the Corporation that conditions next year may be such that work can be pushed with greater vigor.

50 per Cent. More Capacity

Another Storey being Added to the Plant of the National Acme Co., Montreal

By adding another storey to their main building, which is approximately 430 x 55 feet in size, the National Acme Co., Montreal, manufacturers of milled screws, nuts, bolts and special parts, expect to be able to increase their output by 50 per cent. The addition to the plant has been rendered necessary by the increased volume of business being booked, particularly from automobile manufacturers. The work of enlargement will probably be completed by January 1. When under operation, the extended plant will require the services of from 75 to 100 additional hands.

Will Make Tungsten Lamps

Canadian Westinghouse Co., Limited, are Establishing New Industry at their Hamilton Works

Contracts have recently been let by the Canadian Westinghouse Co., Limited, for the remodelling of their west end plant, which was used continuously throughout the war period by the Militia Department. This plant will be used for the manufacture of tungsten lamps. The management expect that production will be commenced within the next four or five months. It is impossible to say how many additional employees will be needed, but the number at the outset will be quite limited.

Building Power Plant

Bathurst Lumber Co., Limited, Spending Million Dollars on New Power Development

About a million dollars is being expended by the Bathurst Lumber Co., Limited, Bathurst, N.B., on an important power development at Grand Falls on the Nepisiquit River, twenty miles from Bathurst. The Falls have a natural drop of 84 feet. The company are building a reinforced concrete dam, which will raise the head from 100 to 110 feet. Two turbine generators, each developing 4,500 h.p., will be installed and provision is being made for another unit of the same capacity to be installed later on as required. The power will be transmitted over steel poles to the pulp and saw mills at Bathurst and the whole operation will be complete and in service by the end of 1920.

Greater Brick Capacity

Citadel Brick & Paving Block Co., Limited, Quebec, Will About Double Its Output

By February 1st, the Citadel Brick & Paving Block Co., Limited, Quebec, expect to have completed a plant enlargement which will increase their annual output of bricks from eighteen to thirty-five million. They are adding to their present battery of three kilns, four round down-draft brick kilns of a capacity of 100,000 bricks each, these being all connected together according to the Minter System and equipped with electric motors and fans for artificial draft. To their system of dryers, they are adding twelve 110-foot

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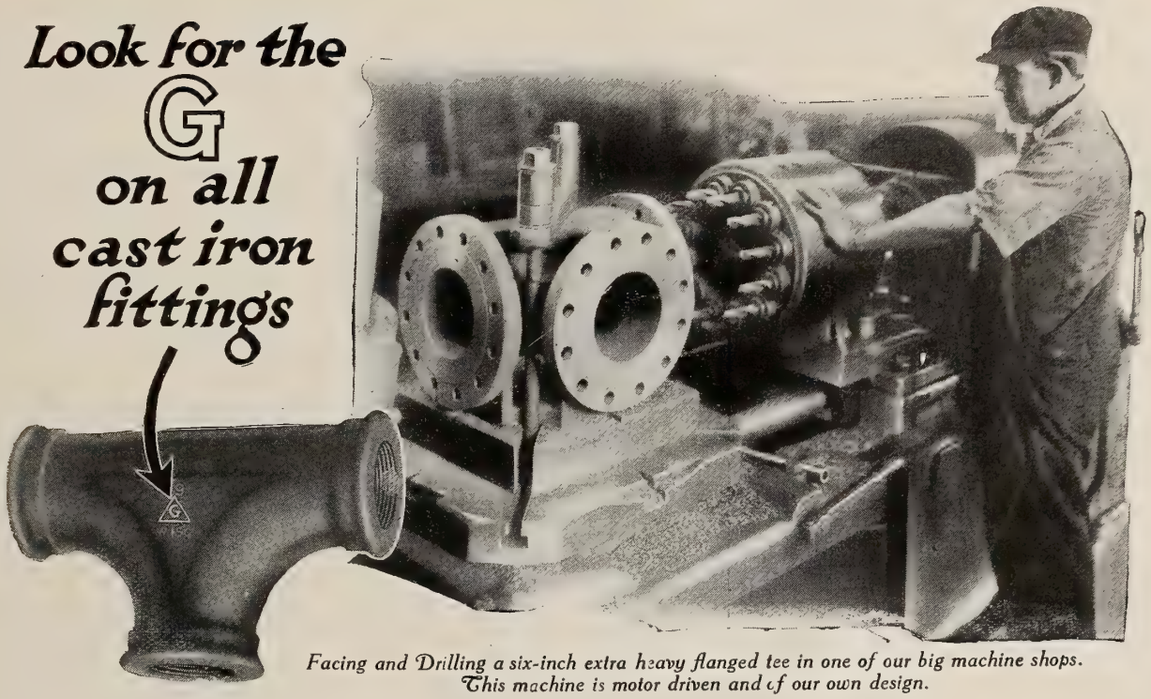
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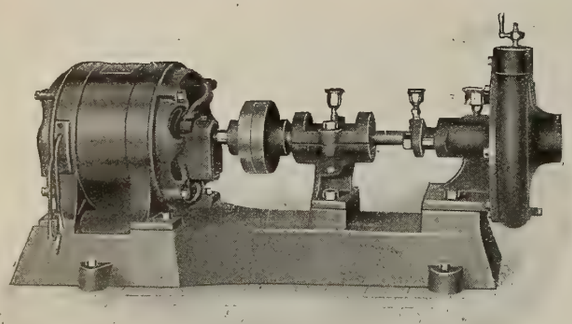
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Write for Bulletin

Hamilton Motor Works, Limited
HAMILTON, CANADA

waste heat dryer tunnels, with capacity of drying 40,000 bricks per 24 hours. These dryers are equipped with electric motors, fans, etc., and will be the most up-to-date dryers in the country. The company are also putting in additional machinery to take care of increased production, such as heavy duty dry pans for pulverizing shale, single roll crusher for crushing shale, new Freese cone-clutch wire-cut brick machine, new pug-mills, etc. When all improvements are carried out, the plant will be producing 10,000,000 high-grade rustic face bricks, 25,000,000 builders' shale bricks, and 1,000,000 square feet of hollow ware a year. The cost of the enlargement will be about $100,000.

Preparing for Mill Erection

Nashwaak Pulp & Paper Company Construct Dam and Power House on Nashwaak River

As a preliminary to their proposed development on the Nashwaak River in New Brunswick, the Nashwaak Pulp & Paper Co., Limited, of St. John, N.B., and New York, are at present completing the construction of a dam and power-house about 3½ miles from the confluence of the Nashwaak and St. John Rivers. It is expected that the dam, which will develop about 1,000 h.p., will be completed this fall. The company have not yet decided as to when they will begin the construction of their pulp mill and, according to Hon. N. M. Jones, the manager, no definite action will be taken until labor conditions are more settled. In the meantime the company are continuing to operate their mill at St. John, formerly the mill of the Partington Pulp & Paper Co.

Open Branch Plant

Hall, Dent Canada, Limited, Forced by Labor Shortage to Branch Out

Owing to the difficulty of securing sufficient labor in London, where they are operating two plants, Hall, Dent Canada, Limited, started a new branch plant last month in the village of Zurich, Ont., where they will manufacture silk and chamois dressed gloves. They have rented a vacant factory building which will accommodate from 50 to 60 hands. The move is in a sense experimental, but if adequate labor is available, the industry will no doubt be extended. This is the plant which was reported last month as having been established by Mr. H. Gundel, Mr. Gundel being superintendent of the London plants.

New Paint Industry

Winnipeg Wholesale Hardware Dealers Are Building Plant in St. Boniface

A paint factory is being erected in St. Boniface, Man., by Marshall-Wells Co., Limited, Winnipeg. It is a building 80 x 80 feet, four stories high, of reinforced concrete, and will cost approximately $90,000. The Company expect to spend upwards of $300,000 for equipment, purchasing only the most modern machinery, and will manufacture paints and paint specialties, to be sold under the brand of "Mars-Wells." They hope to start manufacturing by January 1.

McClary Enlargements

Quarter of Million Being Spent on Two Additions to Plant in London

Two new buildings are being erected by the McClary Mfg. Co., London. One of these is in connection with the tinware and enamelling departments and consists of a shipping building, being built on York Street, with spur track to facilitate handling of raw materials and manufactured goods. The other is in connection with the foundry department and is a building to be used for woodwork and box



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Automobile am at present using..... Motor Oil. I will be in the market for more oil again about ..... and you may quote me on ..... gallons En-ar-co National Motor Oil.

manufacturing, as they cut up a good deal of lumber annually for their own use. The latter building will be 80 x 120 three stories, and will cost about $150,000. The former will cost approximately $100,000. These buildings do not really constitute any addition to the productive capacity of the plant, which for the past year has been worked considerably under capacity, owing to the difficulty of securing skilled help. They have plenty of room for expansion, provided men and materials were available, but the difficulty of procuring materials at present is very acute and the probabilities are that they will be considerably handicapped in this respect for some months to come.

One-Third More Capacity

Hosiers, Limited, Woodstock, Contemplate Making Considerable Enlargement to Their Plant

Though only completed quite recently, the plant of Hosiers, Limited, Woodstock, is about to be enlarged by the addition of an extension, 50 x 60 feet, three storeys high, which will increase present capacity by about one-third. The present mill is 50 x 70 feet, of terra cotta brick and mill construction, three storeys high. About 80 operators are employed, the equipment consisting of 108 machines. This will be increased to 140 machines when the extension is completed. The company are engaged in making hose, the present output representing a turn-over of $350,000. H. W. Austin, of the "P.K." Company, Montreal, is president; K. W. Harvey, of the Harvey Knitting Co., is vice-president and managing-director; James Bassett, secretary-treasurer; and W. A. Shakman, vice-president and managing-director of Julius Kayser & Co., New York, and W. W. Naylor, Toronto, directors.

Complete New Plant Proposed

Renfrew Machinery Co., Limited, Have Ambitious Program of Plant Extension in View

The Renfrew Machinery Company, Limited, Renfrew, Ont., are at the present time considering the further enlargement of their manufacturing facilities, for the purpose of meeting the increase in business in cream separators and scales, as well as to provide space for the manufacture of tractors and stationary engines. They will really build a complete new plant and not extend their present plant. However, as this will be somewhat of an undertaking, they will not likely start on the construction of the new building until the spring of 1921.

Big Flour Mill for Calgary

Work Progressing Satisfactorily on 6,000-Barrel Mill for Alberta Flour Mills, Limited

The work of erecting the 6,000-barrel mill for the Alberta Flour Mills, Limited, in East Calgary, has now reached the second storey stage, and if nothing unforeseen happens the mill will be completed in time to operate on some of the 1920 crop. The work of construction was started in the early summer, and the heavy work is now done. Accompanying the mill is an elevator capable of storing one million bushels of wheat. The mill-site comprises ten acres of ground with a 2,000-foot frontage on the main line of the C.P.R.

Referring to the development, Mr. J. Albert Burgess, financial agent of the company, says: "There is now no question in the mind of the student but that Western Canada has great advantages in the manufacturing and domestic sale and export of flour. The market for the millfeed is in Alberta, and the millfeed is very necessary to the successful building up of the live stock industry. A large mill at Calgary has all the advantages that an eastern mill has for the sale of its products in

Canadian Carbonate Company, Limited

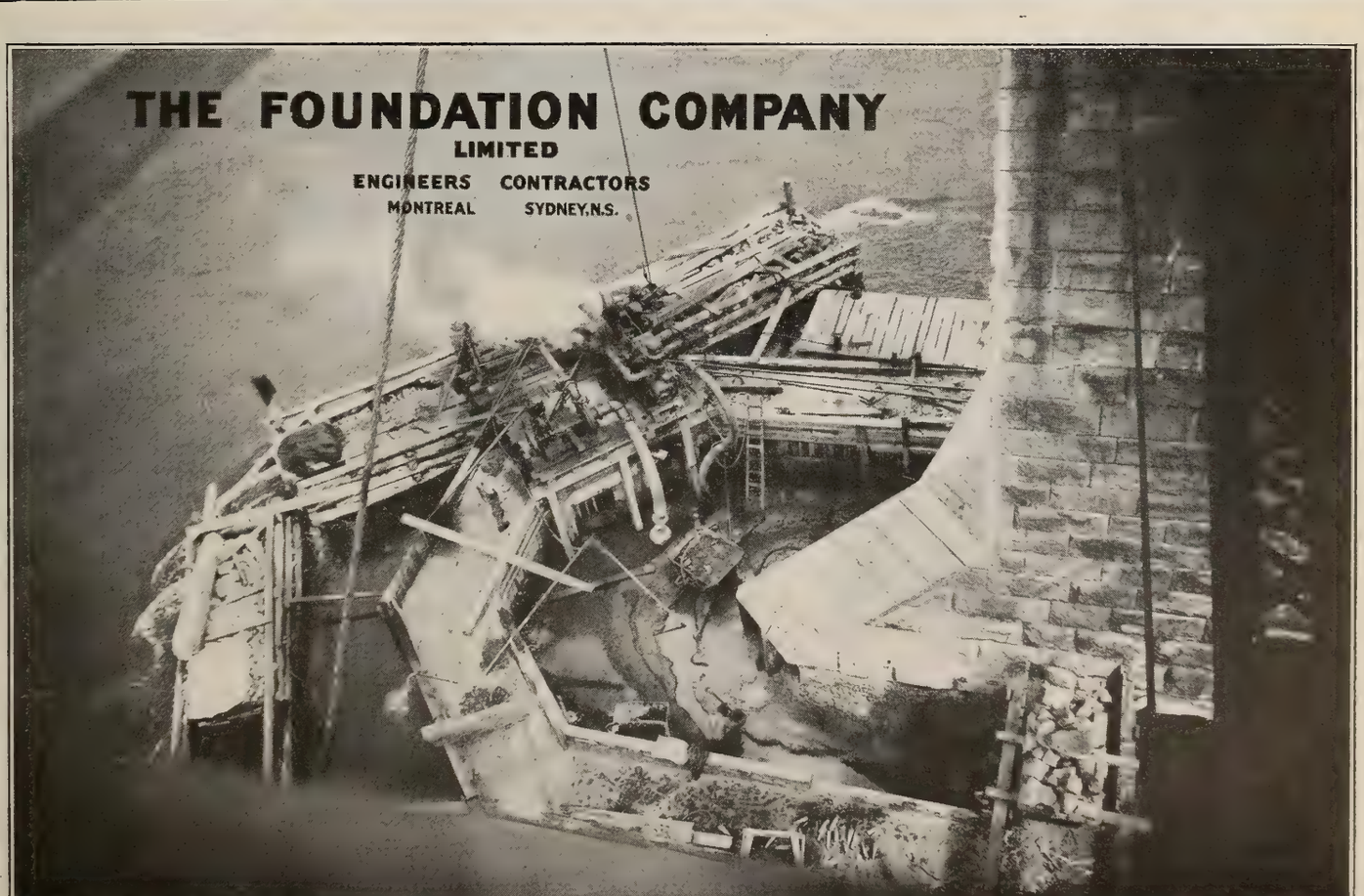
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The photograph shows the Foundation Company Limited repairing a bridge pier that has been undermined. The upstream end of the pier has been coffer-dammed and the site unwatered preparatory to actual repair work. The very fast current necessitated the use of breakwater cribs, as can be seen plainly in the picture.
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the east, and by eastern ports to Europe and, what the eastern mill cannot have, the advantage of the shipments west by Vancouver to the Orient, the west coast states and the west coast of South America."

George Lane, the well-known rancher, is president; A. E. Cross, vice-president, and E. E. Stevens, general manager of the company. One million dollars of the $2,500,000 capital stock has been subscribed by some 600 farmers and ranchers of Alberta. All stock offered has been on a straight basis of $100 per share, without any bonus or promotion stock.

Open Branch Plant

Canadian H. W. Gossard Co., Limited, Secure Premises in Town of Drummondville, P.Q.

A factory building in Drummondville, P.Q., has been leased recently by the Canadian H. W. Gossard Co., Limited, Toronto, manufacturers of corsets, etc., and this is now under operation. In the meantime the branch plant in the Wrigley Building, Toronto, has been closed and its organization consolidated with the main plant at 284 King St. West. Reports that both Toronto plants would be closed and that a large new factory would be erected by the company at Drummondville are incorrect. What may ultimately happen is unknown, but there is no likelihood of the Toronto plant being closed for several years and the erection of the new building at Drummondville is contingent upon the labor outlook. The present branch, which is about the same size as the Toronto plant, is intended to try out the situation, and so far the experiment has proved successful.

Varnish Company Extends

Holland Varnish Co., Limited, are Putting Up Addition to Relieve Pressure on their Plant

In order to relieve the congestion in their present plant, the Holland Varnish Co., Limited, Montreal, are putting up an addition which will enable them to handle a much larger volume of business. The plant as originally designed was built to handle a business of a quarter of a million dollars per annum. Although several extensions and alterations have been made during the past three years, the additions have not been sufficient to enable the company to cope with business now running over a million dollars per annum. The present extension is calculated to give the plant this capacity. The company hope to have the building completed within the next few months, but it will take some time to get the machinery installed as deliveries are very slow.

Enlarge Fergus Plants

Beatty Bros., Limited, Carry Out Programme of Extension, Greatly Increasing Capacity

The business of Beatty Bros., Limited, Fergus, Ont., manufacturers of stable equipment, washing machines, pumps, ladders, churns, etc., has grown so rapidly that they have found it necessary to increase their buildings in Fergus considerably. They already have two large factories in Fergus, and extensions are being built to both. To the west of the saw-tooth building they are building an extension, 96 x 144, for increased storage and shipping space. At the other end, to the east, they are adding an extension, 96 x 168, to provide

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MANUFACTURERS OF
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Steamers "REDCAP" 2730 net tons and "KYLEAKIN" 3073 net tons

loading Spruce Deals for Great Britain at Wharf Mill No. 2, Bathurst Lumber Co., Limited, Bathurst, N.B. Both Steamers were just commencing deck loads when photo was taken, and were drawing 16½ ft. water. They will draw 20½ ft. when completed. The "REDCAP" carries about 3,000,000 ft. and the "KYLEAKIN" about 3,500,000 ft. They were loaded at the rate of about 650,000 ft. per day of 10 hours.

BATHURST LUMBER CO., LIMITED

BATHURST **N.B.**

BATHURST

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The retail business man observes with pleasure the ready sale of *McClary's* dominating quality products. These products, well handled, sell rapidly, because each article sustains the character of *McClary's* superior quality maintained undiminished over a period of seventy-two years.

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increased manufacturing facilities. The wood working plant on the Grand River is being enlarged by an addition, 150 x 100, and a large new dry kiln is being erected. All this work is well in hand and will be finished early next year. When these extensions are finished it is expected that the output will be doubled. These additions are quite independent of the recent acquisition by this firm of a plant on Bathurst St., London, Ont., and other alterations and improvements to their factories in London.

Building New Plant

Julius Kayser & Co., Limited, Spending $300,000 on Four Buildings in Sherbrooke

A complete new plant is being erected by Julius Kayser & Co., Limited, at Sherbrooke, P.Q., which will permit of much larger production. The plant consists of a single structure divided into four separate buildings. The main erection is 300 feet long, three storeys and basement, and is divided into two parts, one 135 feet, and the other 165 feet long, the former being 60 feet wide and the latter 50 feet wide. In addition there is a weaving room, 48 x 110 feet, and a room for dressing silk, 40 x 100 feet, these being each one storey high. The floor space is approximately 80,000 square feet, and the cost of construction will run to nearly $300,000. Unless unforeseen conditions arise, the company expect construction to be completed by March 1, though it will be several months after that date before they will be prepared to operate on a large scale.

Oil Cloth Co. Reorganized

Montreal Industry Will Now be known as the Dominion Oilcloth & Linoleum Co., Limited

A reorganization of the Dominion Oil Cloth Co., Limited, took place on October 31, when all the company's undertaking, property and assets were transferred to a new company, known as the Dominion Oilcloth & Linoleum Co., Limited, a company recently incorporated at Ottawa with an authorized capital of $5,000,000. The transfer does not involve any change in either management, organization or control, which all remain as before.

Contracts have recently been let for certain new buildings. Referring to these developments, John Baillie, managing-director, says: "Building operations which we are now making consist of alterations in some of our old buildings, which were out of date and are now being demolished and rebuilt. This, along with the reorganization of our company, is done in the hope that within the next year or two it will be possible to get sufficient raw materials to run our works to capacity, which has not been the case for some years past."

Coke Plant Expansion

By-Product Coke Plant of Algoma Steel Corporation Now a Most Modern Installation

With additions recently made and improvements contemplated next year, the by-product coke plant of the Algoma Steel Corporation at Sault Ste. Marie is now to be regarded as a thoroughly up-to-date plant. A very complete description of the plant written by its superintendent, Wm. Seymour, appears in the November issue of *Iron and Steel of Canada*. The original installation, consisting of two batteries of Koppers regenerative by-product ovens of 55 ovens each, together with the necessary coal handling and by-product recovery apparatus was completed early in 1911. Soon after the coke plant was started, a sulphuric plant was erected to supply the acid necessary to make sulphate. In 1918 the erection of an additional blast furnace made ex-

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The above is a building recently erected for the Steel Company of Canada at Hamilton, Ontario

tensions necessary to the coke plant and these consisted of 50 Wilputte ovens, increase of coal storage space and an additional primary cooler. One of the original Koppers ovens is now being rebuilt and modernized and the other will be rebuilt next year.

Dougall Varnish Co. Expands

Plant of the Dougall Varnish Co., Limited, at Montreal Will Have Larger Output

The Dougall Varnish Co., Limited, Montreal, who are associated with the Murphy Varnish Co., Newark, N.J., and Chicago, have just completed the erection of an addition to their plant giving increased capacity to the grinding department. They are also arranging for the erection of an additional building for storage and office purposes which will cost from $25,000 to $30,000. The work of construction will not likely be finished until after the beginning of the New Year, and the enlargement will naturally increase the output of the plant and involve the employment of more help.

Tin Plate for Canada

Baldwin's Canadian Corporation will be Producing by Beginning of Next Summer

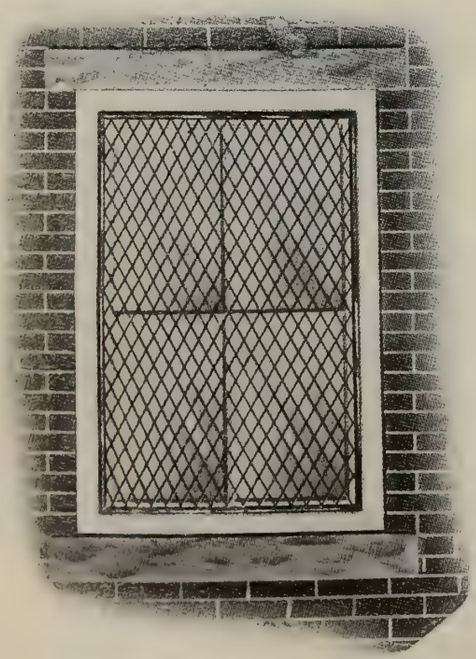
Substantial progress is being made in the construction of the rolling mills being erected by Baldwin's, Limited, the Welsh manufacturers of tin plate and sheets, in Toronto, and the Company expect to be on producing basis by next summer. It will be recalled that the Company took over the big electric steel plant of the British Forgings Co., which was erected in the Harbor Commissioners' industrial section in 1917 by the Imperial Munitions Board. The British Forgings property consisted of 138 acres, with 5,000 feet of dockage and on it was erected a plant equipped with ten six-ton electric furnaces. For the present Baldwins, Limited, will operate on scrap but eventually they may instal furnaces to produce their own iron from ore. The finishing mill now under erection is 800 x 70 feet and will contain eight mills, which will give a production of 200,000 tons of tin plate, sheets, etc., per annum, which will be sufficient to provide for all present Canadian requirements. Hitherto, of course, no tin plate has been manufactured in Canada. Later on the Company will enlarge their operations as the demand for their product increases.

A Busy Pulp Mill

Whalen Company's Mill at Port Alice, B.C., Ships Sixty-five Tons of Pulp a Day

Writing in the *Vancouver Province*, Lukin Johnston gives some interesting first-hand information about the operations of the Whalen Pulp & Paper Co. at Port Alice, B.C There are more than 600 persons employed in and about the plant and in the adjacent logging camps. Already the export reaches 65 tons of pulp a day, packed in 320-pound bales, in addition to large quantities of lumber. Nearly all of it passes through Vancouver on the way to Tacoma and Seattle, to be loaded on Japanese vessels for Japan. The company's sawmill cuts 250,000 feet per day—practically the whole of which comes to Vancouver. In the process of manufacture 350 tons of sulphur are used per month, and 1,000 tons of coal is consumed in a similar period. Stores to the extent of $25,000 a month are purchased in Vancouver to supply the wants of the settlement.

"Snowhite" pulp—the first grade manufactured by the Whalen firm—is said to be as perfect a product of its sort as can be found. In Japan the pulp is manufactured into paper, a process which it is said can be carried out more economically there than here. Plans are being made for ex-



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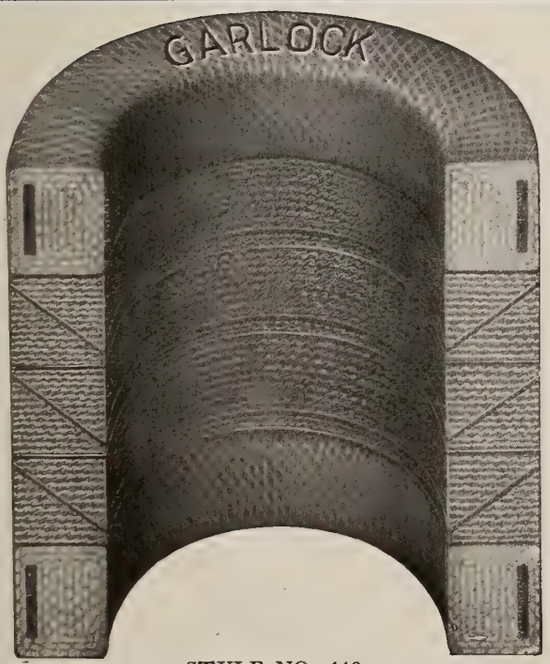
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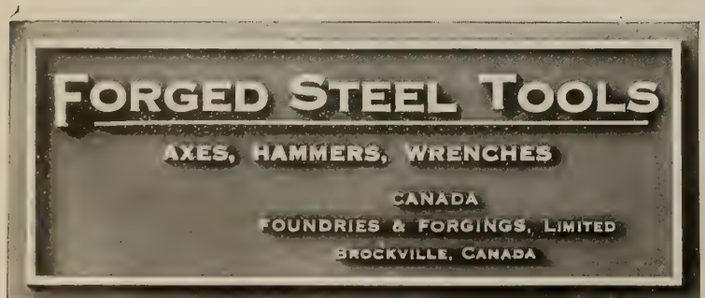


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Further information will gladly be sent upon request.

BROWN CORPORATION

Sales Office: *Portland, Maine, U. S. A.*



tensive improvements to the plant. Water-power will be utilized, and a smaller mill will be put into operation, in addition to the present one, to prevent smaller timbers going to waste.

The company's timber limits, containing 2,900,000,000 feet of standing timber, are, so to speak, at its door. The mountains close at hand are being logged off scientifically, and logs from one camp are conveyed to the water by chute within a short distance of the mill. No finer spruce and hemlock exists in the world than that round Quatsino Sound. The townsite includes, besides comfortable quarters for employees, a hospital, poolroom and reading-room, while a moving-picture house is to be installed shortly.

25 Per Cent. More Capacity

Canadian Fertilizer Co., Limited, Chatham, Will Produce About 2,000 tons per Year

Additions which will increase their capacity by about 25 per cent. over present capacity, are being made to their factory by the Canadian Fertilizer Co., Limited, Chatham. An extension 48 feet square is being made to the present main factory building, the cost of building alone being slightly over $3,000. They are also building reinforced concrete storage bins, 60 x 100 feet, with frame and prepared roofing, the cost of which will amount to $5,000 or $6,000. The addition, with the new machinery being installed, will bring the capacity of the plant up to about 2,000 tons per year. Work is being done by the company's own employees, as the season is one of inactivity.

Brantford Industry Grows

Business of Brantford Oven & Rack Co., Limited, is Extending Into Other Lines

Increasing business has made necessary the extension of the plant of the Brantford Oven & Rack Co., Limited. Their main line consists of ovens for bakeries, but they are gradually taking up various kinds of industrial work for factories. They make trucks of all kinds, manufacturing their own castors and, having secured several patents, will increase the number of their products. The addition under erection consists of two storeys and basement. It includes a special assembly room with iron beams, so that they can build any type of low temperature heating oven that is desired. A number of special machines are being installed.

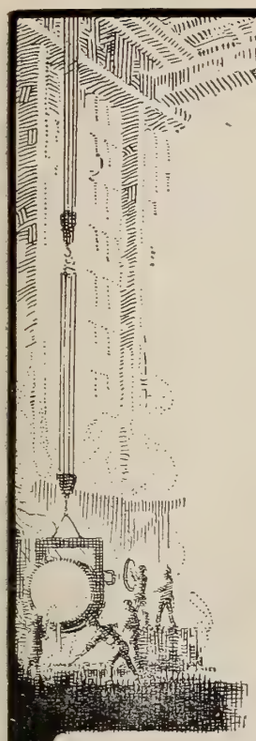
Two Auxiliary Plants

Cluett, Peabody & Co. of Canada, Limited, Are Increasing Their Productive Capacity

In order to take care of certain operations which they are unable, because of scarcity of operators, to handle in their factory at St. Johns, P.Q., Cluett, Peabody & Co., of Canada, Limited, manufacturers of collars, shirts, undersuits and handkerchiefs, have acquired a building in Sherbrooke, P.Q., 30 x 125 feet, four stories, which they hope to get ready for operation as an auxiliary plant this month. In it they expect to be able to employ from 200 to 300 girls.

As indicating the growth of business, the Company have recently opened an auxiliary plant in St. Johns, which is materially increasing their production of collars, while they are endeavoring to secure premises in Montreal which will enable them to increase production of shirts. It is also their intention as soon as necessary to double the size of the Sherbrooke factory.

Reporting on business conditions in their particular lines, F. W. Stewart, Managing Director, says: "The demand for our product is very strong indeed and, generally speaking, the supplies of collars and shirts throughout the country are



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Canadian Industry emerges from the chaos of the war years a veritable young giant challenging the world.

Yet, great as has been our recent progress we are but on the threshold of an era of development and expansion almost inconceivable.

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To bring home to Canadian manufacturers the inseparable relation of Chemistry to Industrial Progress we will publish in this space, each month, a short, practical paragraph or two on Industrial Chemistry. In the interests of your business read and digest these few words.

Do not hesitate to ask us how Chemistry can help YOU. Our commercial laboratories, the largest and best equipped in Canada, are organized to serve you.



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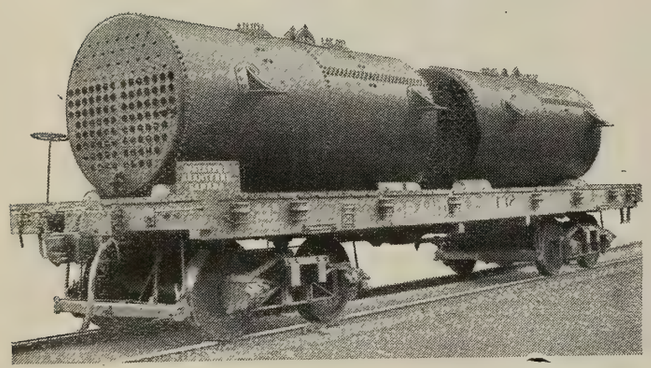
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very low. We have recently withdrawn our salesmen from their territories, as our present production is sold up for many months to come, and it is only by securing the additional factories mentioned that we can hope to catch up on the demand for our goods within the next year or two If this demand should continue, which would appear to be very likely, it will be impossible for us to increase our production to a sufficient extent to take care of the demand within the time mentioned."

From Munitions to Tractors

Cluff Ammunition Company Organization Converted Into Tractor Manufacturing Industry

It was one of the problems of the reconstruction period to know what to do with the various munition-making industries which had sprung up here and there throughout Canada. In the case of the Cluff Ammunition Co., the difficulty has been solved by substituting the manufacture of tractors. A company known as the Chase Tractors Corporation was formed and this Company purchased outright the world's manufacturing rights and trademark of the Chase Motor Truck Co. of Syracuse, N.Y., makers of the Chase Tractor. The plant of the Cluff Ammunition Co. has been rearranged to meet the new conditions and the task of reconstruction has now been practically completed. By this arrangement the organization, plant and equipment of the Cluff Ammunition Co. have been conserved for the uses of Canadian industry. Back of the new corporation are Messrs. R. J. and W. J. Cluff, J. W. Norcross, R. M. Wolvin, and James Whalen, all of whom were interested in the munition company.

The Chase Tractor represents nine years of engineering study and practical experience in tractor building. It is a low-riding machine, which can be used under trees in orchards, on hillside work and on rough ground. It has no differential gears—that is, it gets equal driving power on both rear wheels, giving it great power on hilly ground and for overcoming side-draft.

F. R. Bartlett, General Manager, states that from every standpoint business looks very encouraging, both domestic and foreign. The Company are covering Canada pretty thoroughly and have opened a branch in Syracuse, N.Y., to look after American trade. Early in December they will send a representative to London, England, to spend three or four months investigating the whole question of export.

Before the end of the year the Company propose to start the assembling of a motor truck and will therefore turn out both trucks and tractors from the Toronto factory.

The Fish Packing Industry

How Plants on the West Coast of Vancouver Island are Increasing Operations

Information as to the operations of the fish-packing companies on the west coast of Vancouver Island is contained in a contribution to the *Vancouver Province* by Lukin Johnston. Mr. Johnston says that the waters of the west coast probably are more prolific of fish life than those of any portion of Canada or the United States. The products of the coast vary from the mammoth 80-foot sulphur-bottom whale to the tiny pilchard, not much larger than a sardine. Then there are salmon, halibut and herring, and in addition sea lions and several other varieties of whale.

The sockeye does not occupy a conspicuous place in the west coast salmon catch. Springs and cohoes are caught in large numbers, but in chums the west coast leads all other districts. This year, despite the unusual fact that lack of moisture has handicapped some canneries, the pack of

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With a capacity of 450,000 (proof) gallons per month we are the largest producers of Alcohol in Canada.

Manufacturers of vinegar, perfumes, essences, pharmaceutical preparations, etc., are invited to write us for prices of Alcohol suitable for their particular line of business.

We make a special feature of contracting for the requirements of manufacturers for the year or season, thus providing not only a uniform cost but also a steady supply as needed.

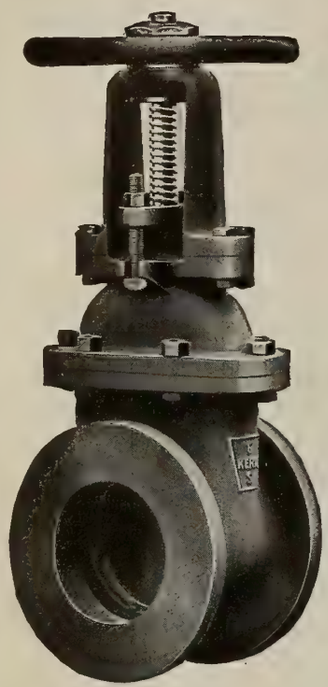
Those who are using Duty Paid Alcohol in their manufacturing processes would do well to consult us with a view to using it "In Bond," thus avoiding the use of two-year-old Alcohol. Under the rules and regulations of the Department of Inland Revenue, newly made Alcohol may be used "In Bond." This Alcohol is much cheaper than two-year-old.

METHYLATED SPIRITS or Denatured Alcohol is sold only by the Department of Inland Revenue, Ottawa, Ont., but any other kind of Alcohol may be secured from us.

CANADIAN INDUSTRIAL ALCOHOL COMPANY LIMITED

MONTREAL, QUE.

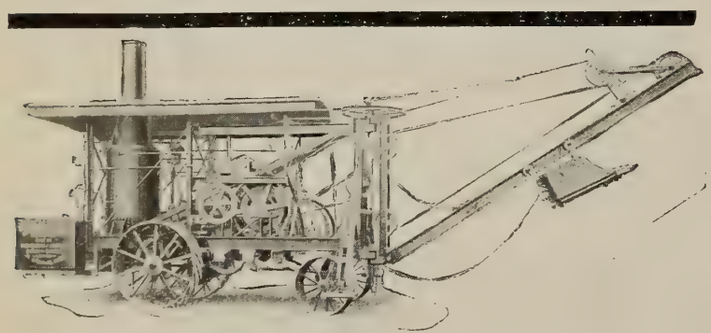
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St. Catharines Ont.

Eastern Sales Office : Hall Machinery Co., Sherbrooke, Que.

chums will run well up to 250,000 cases. It is late in the season now (Oct. 24), but the fish still are being caught in abundance and are in good condition. One day last week at the Nootka cannery there were landed 18,000 fish—the finished cans passing along at the rate of eighteen a minute all day long.

The output of this plant approximates 70,000 cases a year. Wallace's cannery at Kildonan, on Barkley Sound, put out nearly 100,000 cases last year, but this year, owing to the unwonted dryness of the season, the output will be considerably handicapped So dry has the summer been that insufficient water has been obtainable from the mountain springs to run the boilers of the Kildonan plant to capacity, while, for the same reason, it has been necessary to close down the cold storage plant. It is estimated that this cannery, one of the largest on the west coast, will not pack more than 30,000 cases of salmon this season.

Large additions are almost completed to the plant of Gosse-Millerd at San Mateo Bay, making this one of the biggest canneries on the coast. Grappier Creek cannery, run by returned men, Clayoquot and Quatsino canneries all are having a successful season and just now are hives of industry.

Pilchard has been exported by several canneries during the last two years. The Nootka Packing Company has sold in that time about 100,000 cases. This year so far the company has put up 60,000 cases of this fish.

The herring salting plant of Butterfield and Mackie at Ecoole, on Barkley Sound, is being made ready for the season's work. Last year the company shipped to New York 2,000 tons of herring, more than 14,000 barrels. This plant has been in operation four seasons. Both Newfoundland and Alaska now compete for this trade, but despite the handicap of freight rates, the local products finds a ready sale.

New Steel Products

Algoma Steel Corporation Meets with Success in Manufacture of Alloy Steel

Two important developments in the steel industry are to be recorded this month. One concerns the manufacture of alloy steel, which has been successfully tried out by the Algoma Steel Corporation, the other the rolling of structural shapes up to 15 inches by the same company. The alloy steel has already been used with satisfactory results by Canadian automobile manufacturers and, as this material has hitherto been imported from the United States, a substantial market is opening up for the product. In the matter of structural shapes, these are being rolled in a section of the rail mill equipped for the purpose. The new structural steel mill, which was proposed some time ago, has not yet been erected, but the company hope that an early announcement will be possible regarding its construction. The company have recently booked several good orders for rails and have business on hand to last six months.

West Coast Whales

Various By-Products are Taken from Mammals Caught Off British Columbia Coast

Writing in the *Vancouver Province* under date of October 24, Lukin Johnston tells of the operation of the Kyuquot Whaling Company on Vancouver Island. Up to date, he reports, the station at Kyuquot had handled 157 whales. Two schooners are kept employed, while about seventy-five hands are kept busy at the station.

Four principal varieties of whale are caught—sei, sperm, sulphur bottom (the largest variety), and the humpback, the only really native whale. They run from sixty to ninety feet in length and average one ton in weight to each foot of

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Persons desiring to tender are requested to register their names and addresses with the

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Tender forms with full details of the goods and places at which samples may be seen, will be mailed when ready to those who have registered as requested above.

Special Terms to Hospitals, Etc.

Dominion, Provincial, and Municipal departments, hospitals, charitable, philanthropic, and similar institutions which are conducted for the benefit of the public and not for profit may purchase goods without tender at prices established by the War Purchasing Commission.

Returned Soldiers and Sailors and Widows and Dependents of Soldiers and Sailors killed in the War may obtain supplies, for their own personal use and not for re-sale, through the nearest branch of the Great War Veterans Association who will combine individual orders and forward to the War Purchasing Commission through the Dominion Command of the Great War Veterans Association. These services are rendered by the Great War Veterans Association to all parties in the classes named, whether members of the Great War Veterans Association or not.

All communications should be addressed to the Secretary, War Purchasing Commission, Booth Building, Ottawa, who will be glad to supply lists and further details to those interested.

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MONTREAL - CANADA

length. From the blubber of an average whale more than 100 barrels of oil are produced and shipped to soap factories. The bones are treated and sent to corset and comb factories to be manufactured. Part of the meat is canned for food and from the rest of the meat fertilizer is produced. Only the meat of the younger whales is considered fit for food, and in appearance and taste it resembles beef. Thirty thousand cases of whale meat were shipped from the Kyuquot station last year.

Linen Industry Extends

Flax Spinners, Limited, at Guelph Add a Threshing and Cleaning Mill to their Plant

Through the recent completion of a threshing and cleaning mill, Dominion Linens, Limited, Guelph, are in a position to carry through the entire process of manufacturing linens from the growing of flax to the making of the finished article. The mill is a structure 40 x 100 feet and is operated in connection with the Flax Spinners, Limited, organization which looks after all the processes up to the spinning of the thread. The Company are now able to grow their own fibre, produce their own seed for re-seeding purposes and put the flax through all the different processes up to the finished linen. The inclusion of the threshing and cleaning mill will enable them to grade their material for the different classes of work they have in hand and they expect it will mean further extensions in their business.

General Phonograph in Canada

Have Recently Acquired and Are Now Operating a Plant Located in Kitchener

A recent development in the musical instrument industry is the entrance of the General Phonograph Corporation of New York into Canada. They have acquired the plant, at Kitchener, of the Pollock Manufacturing Co. and are now operating it under the name of the General Phonograph Corporation of Canada, Limited. Phonograph motors, tone arms, sound boxes and phonograph accessories are being made both for domestic and export trade, and in order to handle the growing business in these lines an addition is being built, which will bring the floor space up to 41,500 square feet. The Pollock Mfg. Co. were manufacturing motors, etc. for the past twelve years, except during the war period when the factory was devoted to the making of war material. The head office of the General Phonograph Corporation of Canada is at 172 John St., Toronto. Mr. C. J. Pott is Canadian manager, in charge of all the sales for Canada, and Mr. A. B. Pollock is in charge of the Kitchener plant, assisted by Mr. Welker, chief engineer.

Buy Out Little Current Mills

C. Beck Mfg. Co., Limited, Penetanguishene, Take Over Mills and Limits of Little Current Lumber Co.

The C. Beck Mfg. Co., Limited, manufacturers of lumber and bill stuffs, lath, shingles, etc., Pentanguishene, Ont., have taken over the plant of the Little Current Lumber Co., Little Current, Ont., which includes their mills and limits. The capacity of the lumber mill is 140,000 feet in 20 hours with the mill operated night and day. The plant was formerly owned by W. & A. McArthur, Cheboygan, Mich., and was later taken over by George T. Jackson and associates. The number of men employed is from 150 to 200. The C. Beck Mfg. Co. have no intention of enlarging any of their plants, as there is more sawmill capacity on the Georgian Bay now than there is timber to supply them.

"MORROW'S"

Twist Drills made from Sheffield (England) steel, and specially tempered—the lasting kind—***MORE HOLES, WITH LESS RE-GRINDING.*** The kind for ***YOU***—unconditionally guaranteed.

"MORROW'S"

SET and CAP SCREWS, ENGINE STUDS, SEMI-FINISHED NUTS.—The reliable kind you have used for years.

Insist on MORROW'S and get maximum service

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It's Always Ready

Eddy's Indurated Fibreware Fire Pail

Every Eddy Fire Pail has a rounded bottom that necessitates its being hung on a rack or hook. Therefore, in the event of a hurried call the Eddy Fire Pail is always sure to be in its proper place—in the rack or on the hanger.

And it won't shrink, bulge or fall apart. Every pail is moulded, pressed and baked in one piece until it is as hard as granite.

Ask any hardware dealer to show you the Eddy Fire Pail.

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NEW PROCESS GEARS
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They last indefinitely too

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Nazareth, Brennan and Dalhousie Streets
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MALLEABLE IRON
CASTINGS

HIGH TENSILE STRENGTH

GALT MALLEABLE IRON CO.
LIMITED
GALT ONTARIO

Now Making Steel Tanks

St. Lawrence Welding Co., Limited, Enlarge Their Plant to Undertake New Line of Manufacture

The St. Lawrence Welding Co., Limited, of Montreal, have started the manufacture of welded and rivetted steel tanks and to secure space for the new industry have secured 10,000 square feet of floor space immediately behind their present works. By cutting doorways through the wall separating the two premises they have been able to bring the whole plant under the supervision of the one office. It is their intention to manufacture tanks of any size or capacity, and their plant is fully equipped with punches, shears, rolls and the necessary equipment to work up to half-inch plate. The company state that they have been practically forced to go into this business on account of the repeated demands and inquiries for both welded and rivetted tanks. They have secured a lot of new business and their new venture is well on the way towards proving very successful.

New Factory for Files

Kerr File & Tool Co., Limited, Are Putting Up a New Plant at West Toronto

The Kerr File & Tool Co., Limited, who have succeeded the old-established Kerr Bros. File Works, Toronto, are erecting a new factory at the corner of Fisher Street and Dundas Street West, where they will undertake the manufacture of files on a large scale. They hope to get started by the new year and for the first few months will concentrate on the production of files only. Later on they expect to extend their industry to include other products. In the meantime they are continuing operations at their old factory at 63 Nelson Street, where they installed additional equipment to increase their output of files. The new property is about 400 x 100 feet and two shops are being erected, one for forging and grinding and the other for cutting and hardening.

Doubling Their Capacity

Perfect Machine Co., Limited, Galt, Must Enlarge to Take Care of Increasing Business

With orders coming in faster than they could handle them, the Perfect Machine Co., Limited, Galt, have found it necessary to more than double the capacity of their moulding shop, while they contemplate the building of an erecting shop, 40 x 132 feet. The business was started in May, 1913, with two men, which comprised the entire staff for the first half-year. After that the staff has grown steadily until now the company have over fifty employees. During the past year they have gone into the manufacture of grey iron and semi-steel castings for the jobbing trade and are meeting with a splendid response. They have also formed a nice connection in Great Britain and are in touch with firms in Central America, France and Switzerland.

Valve Factory for Belleville

H. A. Wood Manufacturing Company, Toronto, are Taking Over Building in Belleville

Arrangements were completed at the first of the month whereby the H. A. Wood Manufacturing Co., of Toronto, who have been operating a small plant on Pearl Street, Toronto, for a short time past, secured possession of a three-storey building on Pinnacle Street, Belleville, formerly used as a cannery but lately as a barracks. The company are putting in a plant for the manufacture of automobile valves and other valves for high pressure work, and about 300 men will be employed. Those interested in the industry include Dr. I. G. Bogart, Kingston; Henry Hangrove, Kingston; S. W.



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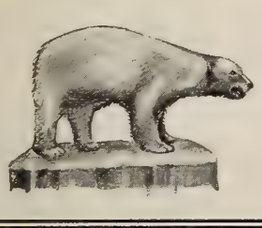
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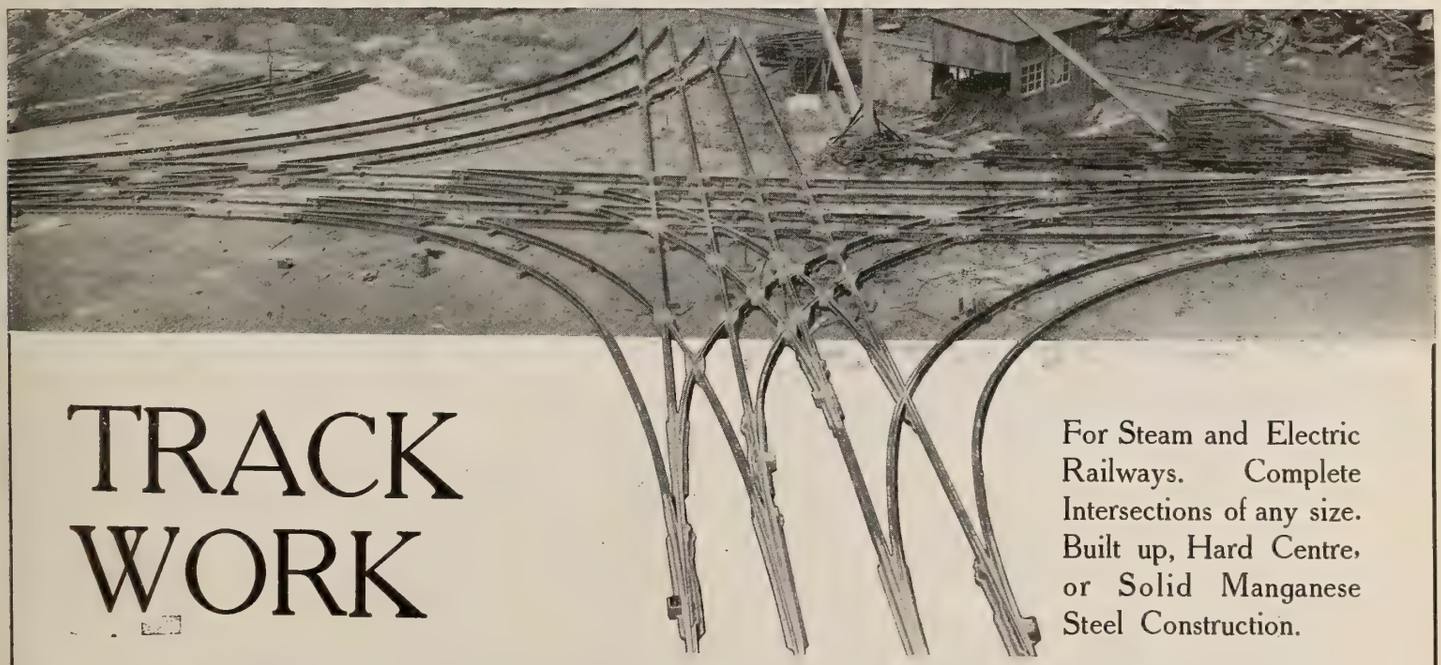
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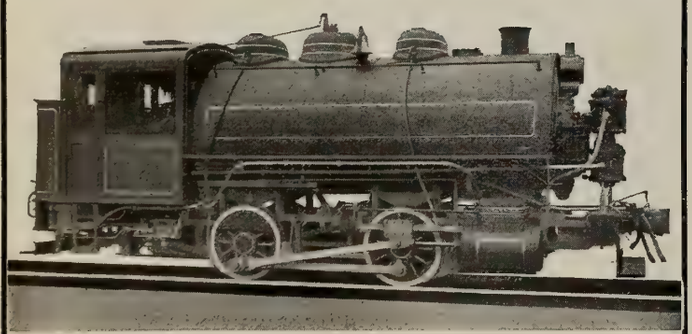
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We are specialists in building locomotives. We build all types and sizes, also all kinds of repair parts for locomotives and tenders.

Our experience puts us in a position to give you expert advice as to what particular type and size of locomotive is best suited to your needs.

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MONTREAL LOCOMOTIVE WORKS, LIMITED
DOMINION EXPRESS BUILDING MONTREAL, CANADA

Jenckes, Sherbrooke; James R. Ness, Toronto; M. G. Hunt, Toronto; L. Denys, Toronto, and R. J. Graham, Belleville. It is a subsidiary of the Wood Airtight Valve Company, Limited, Canadian rights on whose patents are held. The latter company are also arranging to establish a subsidiary industry in the United States.

A 50 Per Cent. Increase

Brantford Roofing Co., Limited, Make Additions and Improvements to Their Plant

Fifty per cent. more capacity will be secured from the plant of the Brantford Roofing Co., Limited, when extensions now under way are completed next March. These additions and improvements, which are costing between $40,000 and $50,000, will include new coating tank still house, double the capacity of the present equipment, additional new boiler, new grit storage bin and additional equipment and machinery. Roofs on all buildings are being raised to make plant uniform and fireproof. Contracts have all been let and the work is being rushed as rapidly as possible. The company are making the enlargement in anticipation of a big boom in building next year, when they anticipate that there will be a considerable scarcity of roofing, as well as of the raw material used in its manufacture.

Going Up Ten Storeys

Northern Aluminum Company are Erecting Big Building in Connection with their Toronto Plant

A building ten storeys high of reinforced concrete construction is being erected by the Northern Aluminum Company, Limited, at their works on Sterling Road, Toronto. It is intended for light manufacturing and warehousing purposes. By removing some of the lighter processes from the present plant, more space will be provided for heavy manufacturing, and output will be correspondingly increased. The work of construction is well under way, but it is impossible to tell when the building will be ready for occupancy. The company hope, however, to be using the building some time next spring. The structure is 151 x 64 feet, ten storeys and basement, and the cost is estimated at $358,000.

Protecting Their Forests

Abitibi Power & Paper Co., Limited, Take Steps to Safeguard Their Supply of Wood

It is most gratifying to note that another of Canada's great paper manufacturing companies are taking steps to conserve the forest wealth of the country. The Abitibi Power & Paper Co., Limited, have recently established a Forestry Department, which has already started to work along the lines of nursery, engineering, protection and investigation. The best available site has been selected for a nursery at a point adjacent to Twin Falls, and here ten acres of land have been cleared and prepared ready for operations in the spring. It is proposed to clear and prepare a similar ten acres annually until a maximum of fifty acres is reached, and here will be developed the source of supply for the reforestation branch. The nursery will be placed on such a basis as to give an annual yield of from one to two million four-year-old trees, but as the first stock grown from seed will not be available until the springs of 1922 and 1923, it will be necessary to purchase plantable stock in the meantime.

The location of planting sites, together with detailed data on the exposure, slope, soil, ground cover, percentage of natural reproduction and of species present, drainage, character and amount of timber standing, presence of disease and insects, amount of rainfall and snowfall, fire hazard,



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Limited
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For Municipal, Railroad and Factory Service
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etc., will be determined by the Engineering Branch through an intensive reconnaissance of the limit.

Another branch of the department will be devoted to fire protection. This branch will endeavor to effect the solution to the greatest degree possible of the existing fire hazard problems. Still another branch will devote its energies towards the minimizing of the damages wrought by insects and fungi. Through the silviculture branch will be introduced to a fuller extent the more desirable forest species to the exclusion of the less desirable. This branch will protect valuable watersheds and develop a cutting system which will better the quality of timber, increase its rate of growth, assist and hasten reproduction, reduce windfall to a minimum and produce a maximum final yield by creating the best possible growing conditions.

The Abitibi Company's forestry department is in charge of Mr. H. E. Schanche, Jr., a graduate in forestry of the Pennsylvania State College. He spent some years in forestry work in Quebec prior to the war, served as a lieutenant in the U.S. Air Service, and has now returned to his former line of work.

Additions to Bridgeburg Plant

Pratt & Lambert, Inc., "Varnish Makers 70 Years," to Treble Present Manufacturing Facilities

Extensions which will treble the manufacturing capacity of their present plant in Bridgeburg, Ont., are being made by Pratt & Lambert, Inc., manufacturers of varnish, whose business is now world-wide in extent. The extensions consist of a four-story brick building for the manufacture of enamels, stains and fillers, and similar products; new chimneys, double the size of the old; thinning buildings, filter buildings, and other equipment. These additions are now rapidly nearing completion. Their erection demonstrates how quickly the business has grown, since when the original plant was erected in 1910 it was one of the largest and most up-to-date in Canada.

Added to Woolen Plant

The T. H. Taylor Co., Limited, of Chatham, Have Been Spending Money on Plant Extension

During the past two months the T. H. Taylor Co., Limited, of Chatham, who operate both the Beaver & Daisy Flour Mills and the Chatham Woolen Mills, have been making additions to their scouring plant and installing a large Sargeant wool drier. To accommodate the enlarged plant another storey has been added to the scouring and wool-drying rooms. Altogether some $25,000 or $26,000 have been expended on the additions, which have been necessitated by increased business. The company, who manufacture ladies' friezes, homespuns, blanket cloths, mackinaws, flannels, tweeds, etc., find trade very good just now and their output is sold up for eight months.

Increased Facilities

J. M. Loose and Sons, Limited, Toronto Have a New and Larger Factory Under Erection

A new factory is at present under construction by J. M. Loose & Sons, Limited, Toronto, manufacturers of piano actions and keys. They are at present located at 349 Carlaw Ave. while the new plant is going up at 239-261 Sorauren Ave. It is a brick building of mill construction, 120 x 55 feet, four storeys high, with boiler-house and drying kilns. The new factory is larger than the premises occupied at the present and will give increased and better facilities, which are much needed.



Cut of 60-inch "Extra" Double Belt
Made by The J. C. McLaren Belting Co., Limited.

WE ARE HEADQUARTERS FOR ALL KINDS OF

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The Largest Patent Leather Manufacturers in the British Empire

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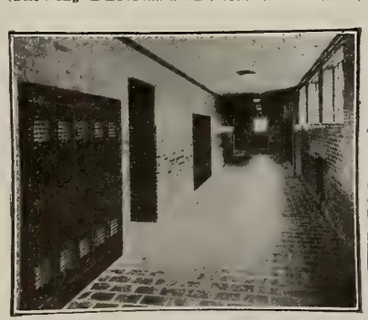
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Manufacturers of
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Buy Steel Lockers, Shelving, Etc. by this name

DENNISTEEL
Made in Canada

IT'S worth while paying a trifle extra to get the best obtainable. Our complete line of steel equipment for shop, store and factory is the best on the continent. We have been longest at this business and are in a position to give better service by putting in better material and giving a finer finish over superior workmanship.

Use our engineering department's services freely. Write for estimate on any proposition in our line. We are strictly "on the job" to serve you in All-Steel Factory, Store and Shop Equipment, Ornamental Bronze, Iron and Wire Work, Commercial Wire Work of all Kinds, General Builders' Ironwork.

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THE DENNIS WIRE AND IRON WORKS CO. LIMITED
LONDON
CANADA

Hamilton
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Make Gasoline Engines

Fisher-Wilkie, Limited, Are Making Large Addition to Their Plant at Sandwich, Ont

An addition 50 x 200 feet, in which they will manufacture gasoline engines, is being made to the plant at Sandwich, Ont., of the Fisher-Wilkie, Limited. They are also building a power plant, 40 x 58 feet, which will be completed by January 1. When these additions are finished, they will have a total of 22,000 square feet. The company some months ago took over the factory of the Bishop Fur Co. and have since been getting it in shape. They started production on December 1.

Increasing Output 100 per Cent.

Jenkins Bros., Limited, Adding to Their Valve Manufacturing Plant in Montreal

Through additions now being made to their plant in Montreal, Jenkins Bros., Limited, manufacturers of valves, packing and rubber specialties, anticipate being in a position to increase their output of valves by about 100 per cent. At the present time they are erecting a new machine shop. This is a building, 80 x 192 feet, one storey high, of steel and brick construction, with crane way and monitor. It is costing approximately $40,000 and will probably be completed about the middle of January. The Company had previously extended their present foundry building and built a new core room, and the additions combined will give them the increased capacity.

Branch at Woodstock

De Long Hook and Eye Co. of Canada, Limited, Have Started Manufacturing in Woodstock

A plant for the manufacture of corset and brassiere tape has been located in Woodstock by the De Long Hook & Eye Co. of Canada, Limited, of St. Marys, Ontario. They have leased a flat on Finkle Street and have installed fourteen machines. About twenty hands are being employed at the outset, and operations commenced at the first of the present month. For the present the undertaking is largely of an experimental nature. The company will not remove from St. Marys and the Woodstock plant will be directed from there.

Peterboro's New Industry

Something About the Nashua Gummed & Coated Paper Co. and its Various Products

Supplementing information appearing in the November issue regarding the establishment in Peterboro of a branch plant of the Nashua Gummed & Coated Paper Co., Nashua, N.H., it might be stated that this concern is one of the largest and strongest companies in the United States in the fields of waxed, gummed, glazed and fancy papers. The company employ about 800 hands in their three mills, two at Nashua and one at Middletown, Ohio. They were formerly a manufacturing department of Carter, Rice & Company, Boston, one of the oldest and largest paper jobbing houses in New England, but for the past several years have operated as a completely separate and independent company. Through their president, Mr. James Richard Carter, the Nashua Company control the Sevigne Wrapping Machine, which is a most successful and widely used bread wrapping apparatus, a situation which assures to bakers a supply of papers especially prepared for machine wrapping, together with the best of service.

The Canadian branch will be backed by the full resources of the parent company, and is prepared to take fullest possible advantages of domestic and foreign trade opportunities.

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Mixed Acid	Phosphate Soda	Caustic Soda	Tin Crystals

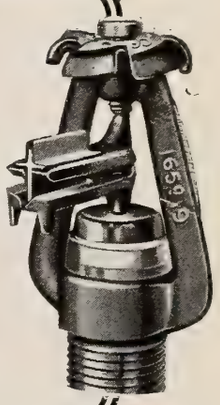
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Puts Out FIRE Quickly

Automatically Drenches Fires — Automatically Reduces Fire Premiums

Fire makes no headway where the Manufacturers' Automatic Sprinkler is installed. As soon as the fire starts, it is quickly drenched. It guards unfailingly your building day and night—a watchman who never sleeps. Your insurance premiums are reduced 30% to 50%, which in some instances pays for installation in two years, after which your insurance savings are clear profit. See about a contract for installation NOW.



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When Canadian Materials are Available at Lower Prices

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Steel Bridges

Railway and Highway Truss, Girder and Beam Spans of all types.



THE MARITIME BRIDGE COMPANY, LIMITED - New Glasgow, Nova Scotia

The officers of the Nashua Gummed & Coated Paper Company are James Richard Carter, president; Winthrop L. Carter, treasurer; Geo. H. Lowe, secretary. The Canadian business will be managed by Robert A. Brown, who has for some time been identified with the Nashua factories in an executive capacity.

Gummed papers fill a variety of demands. The non-curling grades are used in the manufacture of printed labels, stamps, seals, etc., while heavier, stronger grades are prepared for staying the corners of paper boxes and cartons. Narrow strips of gummed paper, known as binding tapes, are quite generally replacing string in securing small packages and in sealing fibre cartons. Various grades of gummed cloth are used widely in book-binding, in the manufacture of writing tablets, and in the reinforcement of fibre shipping cases. Cloth-lined papers find use where unusual strength is required, as in envelopes, maps, and numerous novelties. Waxed papers are used in increasing volume for wrapping food products, such as meat, bread, butter, candies, and cereals. They are also used largely by manufacturers of tobacco, soap, rubber goods, and small metal parts.

Will Make Parchment Paper

Specialty Paper Mills, Limited, Have Plans for Mill at Camden East, Ont.

A new corporation, known as Specialty Paper Mills, Limited, with American capital behind it, has been formed recently to take over the paper mill at Camden East, Ont. The company, which has a Canadian charter, is capitalized at $325,000. Its president is L. F. Houpt, President of the George Irish Paper Co., Buffalo. Pending arrangements for completing the plant as originally laid out, the company may make a limited quantity of newsprint, but it is intended ultimately to manufacture full vegetable parchment and high-grade specialties, particularly lines that are not now made in Canada. The mill has been operated recently by the Camden Paper Mills Co., a subsidiary of the Bathurst Lumber Co., the product being kraft and wrapping paper.

Additional Floor Space

Fredericton Company Building Annex to Give 20,000 Feet More of Floor Space

The John Palmer Co., Limited, Fredericton, N.B., are building an annex to their plant to accommodate increasing business in their different lines, particularly summer packs and plow shoes. This company have been manufacturing shoe-packs, moccasins and larrigans for fall and winter use since 1877. Within the last few years they have introduced a moccasin boot or shoe made from oil-tanned leather, with sole leather sole and heel, as a work shoe for farmers, ranchers, woodsmen, trackmen, laborers and all others who need a strong, easy-fitting footwear. The leather used in the manufacture of this boot, as well as all their products, is tanned by a special process in their own tannery. During the last few seasons, trade in this line has developed considerably and more space has been found necessary to handle it.

Erect Big Warehouse

Plymouth Cordage Co. Are Building Five Storey Warehouse at Fort William, Ont.

A warehouse capable of storing around fifteen million pounds of binder twine and rope is at present under erection by the Plymouth Cordage Co. at Fort William. This company, whose Canadian factory is located at Welland, are immense producers of binder twine for use throughout

Increases Power— Saves Fuel

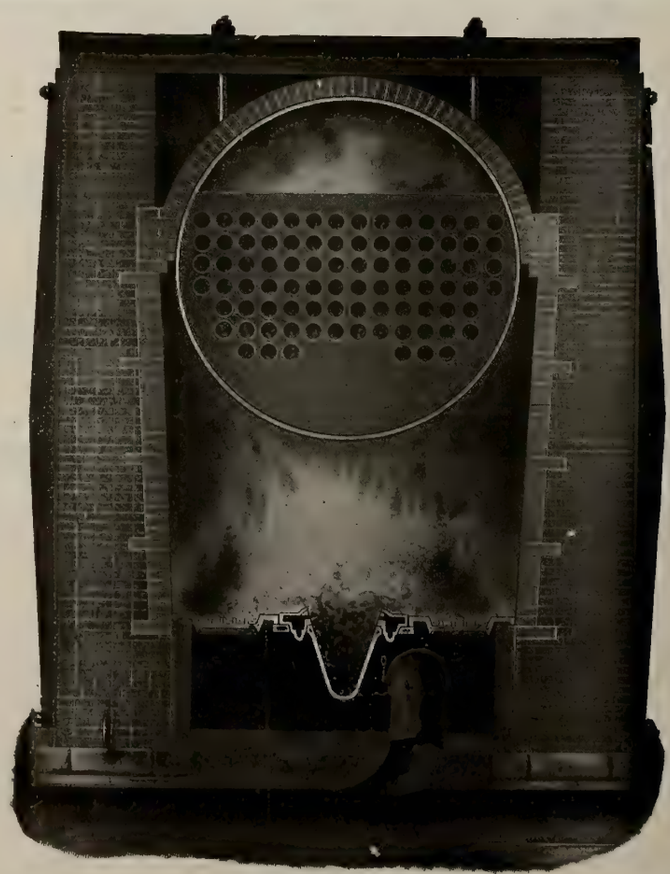
Ordinary methods of firing a boiler are a long way behind the times because it is now well-known that the underfeeding principle gets a far greater amount of heat from the fuel. This principle was pioneered and developed commercially by the

JONES
Underfeed Stoker

Savings in fuel cost, varying between 15 and 25 per cent. are everyday accomplishments of the Jones Underfeed Stoker with any grade of coal from dust to run of mine.

It costs you nothing to find out the possible savings to be made in your plant. Write us for illustrated literature which gives all particulars about the Jones and tells you of plants located all over Canada where you can see the Jones working every day and get the opinion of practical men who know the Jones by experience.

Jones Underfeed Stoker Co.
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CONTAINERS will save on your transportation charges, save your floor space, cut down packing expenses, and give you positive protection against loss from damage and pilfering. Write for prices and samples.

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With our greatly increased capacity we need your business.

A wheel for every purpose and satisfaction guaranteed.

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Dominion Abrasive Wheel Co., Ltd.

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MACDONALD MFG. CO., Limited

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Manufacturers of

PLAIN and LITHOGRAPHED CONTAINERS

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Syrup	Tobacco
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Grocers' Sundries
Druggists' Sundries

Also Toys, Novelties, Tags and Advertising Signs

Well packed is half sold
Make your containers advertise you

Office and Works:
145 Spadina Avenue

Canada, and the location of their warehouse at the head of the Great Lakes is presumably to facilitate the distribution of their product to the farmers of Western Canada. The building is of reinforced concrete construction, 200 feet long, 100 feet wide and five storeys high. It will be electrically equipped throughout with all the most up-to-date apparatus to be installed that will permit of the most efficient handling of the traffic. Located right on the Kam River, direct deliveries from ships and to trains is possible. It is hoped that the building will be completed and ready for use shortly after the opening of navigation in the spring of next year.

Secure Larger Premises

Greb Shoe Co., Limited, Kitchener Are Transferring Plant to a Larger Building

The plant and factory site of the Gourlay-Fogelberg Shoe Co., Kitchener, have been purchased by the Greb Shoe Co., Limited, of the same place, and moving operations are now going on. The building is practically new, 56 x 100 feet, of red brick, three storeys and basement and has been built with a view to extension. There are 3½ acres of land adjoining it. As the floor space in this building is considerably greater than is the company's present plant, and as the demand for their product is continually increasing, they are naturally preparing for a much larger output, and in addition will venture into such new lines as men's welts and women's and misses' McKay sewed shoes. Up to the present they have specialized in men's and boys' working shoes only. New machinery to take care of the expansion has already been ordered and the United Shoe Machine Co. have been instructed to equip the plant for an output of 1,000 pairs per day.

Make Dyes at Trenton

Mineral Dye Products, Limited, Expect to be Producing by First of the Year

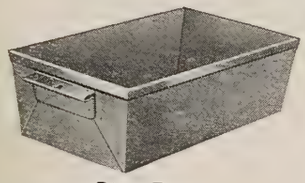
Under the name of the Mineral Dye Products, Limited. a company will shortly be producing mineral dyes at Trenton, Ont. The company have taken over under special exemption arrangements from the town, a building formerly used for cold storage, and are installing an up-to-date plant. They will secure their ore from a property near the Rideau Canal, eighteen miles from Gananoque, and this will be conveyed in barges from the mines to Trenton. It is stated to be high-grade material and the only ore of its kind in North America. The company have been making experiments for over a year and have the necessary formulæ and secret process for making high grade mineral dyes for woollens, serges, tweeds, silks, etc., as well as for use in the paper industry. They expect also to manufacture paints, though this will not be their main product. It is hoped that production will commence about the new year. Ample capital is available and there is said to be no limit to the market for the product.

New Knitting Company

Lennoxville Knitting Mills, Limited, Start Operations in Lennoxville, Que.

The plant of Johnson & Shardlow, Limited, Lennoxville, Que., has recently been taken over by a new company, called the Lennoxville Knitting Mills, Limited, who are continuing the business at the same premises, utilizing the buildings and plant as they were before. The company manufacture worsted and mercerized hose and half-hose. At the present moment no decision has been reached as to possible enlargement. About 35 hands are employed. The President of the Company is Mr. H. V. Haight, a civil engineer connected with the Canadian Ingersoll Rand Co.; Mr. H. L. Allen, the

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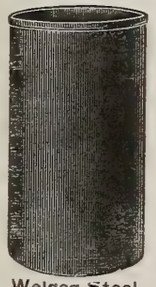
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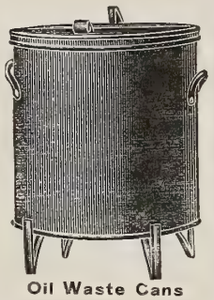


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We Manufacture
GASOLINE TANKS
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Oil Waste Cans

THE STEEL TROUGH & MACHINE CO., LTD.
Tweed, Ont., Canada

"QUALITY FIRST"



VENTILATE

your work-rooms with "Halitus" Ventilators —provide your employees with the Pure Air that is just as essential to efficiency as pure food and water.

"Halitus" Ventilators are not expensive, are highly efficient, no down-draft, any style base, easily installed by local labor.

Prices and full information on request

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TORONTO AND WINNIPEG

DOMINION BRIDGE CO., LIMITED

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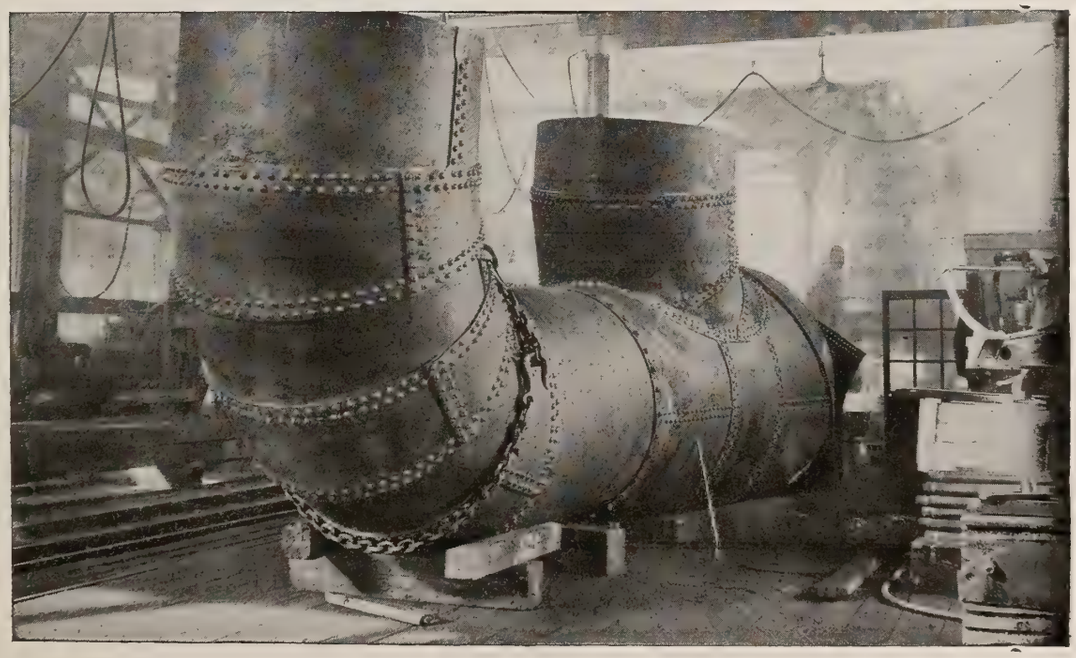
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LARGE STOCK OF STRUCTURAL MATERIAL AT ALL PLANTS



Vice-President, is a jewellery manufacturer in Lennoxville, head of Peerless Jewellery, Limited; the Treasurer is Mr. N. D. Cascadden, wholesale fruit merchant, and Mr. P. G. Newbold, Secretary and Manager, was recently Superintendent of knitting with the Paton Mfg. Co., Sherbrooke.

An extension is being made to the tannery of H. B. Johnston & Co., 774 Dundas St. East, Toronto.

The capacity of the plant of A. J. Reach Company, sporting goods manufacturers, Brantford, is being doubled.

The Montreal Cloak & Suit Mfg. Co., Inc., are opening up a knitting plant under the name of the Fainer Knitting Mills.

The Dunlop Tire & Rubber Goods Co., Limited, Toronto, have a building programme under way which will involve an investment of $250,000.

The Taylor-Forbes Co., Limited, Guelph, are building a new furnace in the core room of their hardware plant and adding an extension, 70 x 100 feet to their hardware foundry.

The Jansen Mfg. Co., Detroit, have purchased the Dale Machine Shop, Walkerville, and will manufacture binding grips for auto upholstery. The plant has about 4,000 square feet of space.

Federal Cement Co. have incorporated to acquire plants at Owen Sound formerly operated by the Union Cement Co. and Imperial Cement Co. These will be remodelled to capacity of 2,000 barrels daily.

The Bon Marche Manufacturing Co. are a new company who have established a small whitewear industry in the old Knights of Pythias Hall, Peterborough, employing from 15 to 20 hands. Prospects are good.

The Provincial Lime Co., Limited, whose plant near Brockville, N.B., was destroyed by fire recently, have completed the greater part of the reconstruction of their works. The capacity will be about 25,000 tons per year.

The Seaman, Kent Co., Limited, manufacturers of hardwood flooring and lumber, are fitting up a plant at West Lorne, Ont., for the production of hardwood flooring. This is their fifth factory specializing in the product.

The Canadian Kron Scale Co., propose to establish a plant at Montreal for the manufacture of Kron automatic industrial scales and Stuebing lift trucks, though it will be some time before all arrangements are completed.

The Buhl Stamping Co., Detroit, have taken a five-year lease of the Hiram Walker Cooperage on Walker Road, Walkerville, and will manufacture their lines in it for the Canadian market. The plant has 15,000 sq. feet. of space.

The extension to the bolt and nut department of the Steel Company of Canada's plant at Montreal, to which reference was made last month, will provide 60,000 square feet additional floor space. The new building will be four stories high, of reinforced concrete construction.

Rice Bros. Knitting Mills, 280 Dufferin Avenue, Winnipeg, who manufacture men's, ladies' and children's sweater coats and all kinds of knitted novelties, have recently enlarged their plant by the addition of three machines and expect to add four more within the next few months.

Because of lack of space to take care of manufactured goods, the International Plow Works of Canada, Limited, Hamilton, have decided to make an extension to the west of their present warehouse. The addition will be 208 feet long by 100 feet wide and will be four storeys high, giving 83,200 feet extra floor space for storage purposes.

Fellow Manufacturers



We Make in Canada
Lead Pipe
Sheet Lead
Wire Solder
Bar Solder
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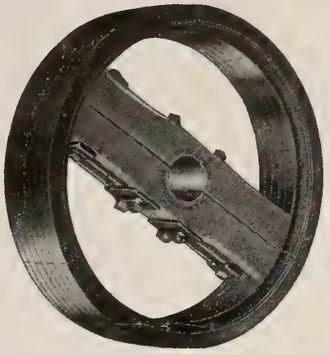
BABBITT METALS
for all requirements

INGOT METALS
Copper Tin Lead
Aluminum and Brass

EVERYTHING
IN METALS

Wherever you are
we can serve you

The Canada Metal Co. Limited
TORONTO MONTREAL WINNIPEG VANCOUVER



General Efficiency Demands the Use of

BERNARD
Wood Split Pulleys

The war is ended so far as a continuation of the bloody combats of the battlefields is connected. But in the war after the war there will be waged lively battles for industrial supremacy wherein the advantage will lie with the plant equipped with the most economical and durable machinery.

Competition will be more intense, and in this connection, keep your eye on the overhead. It has been looming large these past few years and must certainly come down.

BERNARD Wood Split Pulleys will help you eliminate power waste; their cost is low, their efficiency is GREAT.

The A. Bernard Industrial Co.
Manufacturers of High-Grade Power Transmission Appliance
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Black Varnish
Creosote Oils
Wood Preservative Oils
Hard Coal-Tar Pitch
Naphthalene
Disinfectants

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Road Tars (Domtarbond)
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Also teach them to turn in a file as soon as it becomes dull.

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R. L. Graham, who owns a large quantity of standing timber on Great La Cloche and Manitoulin Islands, has purchased a factory site on the water-front of Wiarton and will build a mill and wood-working factory on it, probably next spring.

While they have not definitely decided upon the extent of the enlargement, Piano Cases and Phonographs, Limited, Brantford, successors to the Brantford Piano Case Co., Limited, will extend their present factory sufficient to double their output.

The Percival Plow & Stove Co., Limited, Merrickville, Ont., anticipate erecting in the very near future a new moulding shop, with a capacity of at least 35 moulders, and a new machine shop. This will enable them to increase their output at least 200 per cent.

Confirmation is given by Mr. F. G. Daniels, General Manager of Dominion Textile Company, Limited, of the report that contracts have been placed by the Company for buildings to accommodate 3,500 new looms and 120,000 spindles. Details will be forthcoming later.

The Brantford Computing Scale Co., Limited, of Brantford, have recently completed an addition to their plant in which they are installing machinery which should enable them to double their output for 1920. Forty additional hands will be needed for the enlarged plant.

The factory at Roxton Falls, P.Q., lately operated by Mm. Fauteux Hardware, Ltd., of Pointe St. Charles, was recently sold by auction to Adolphe Desmarteaux, of South Roxton, P.Q., for $7,000. It was built originally by Wilfrid Poirier, of Roxton Falls as a casket factory, attached to which was a sawmill. It is understood that the new purchaser will use only the sawmill.



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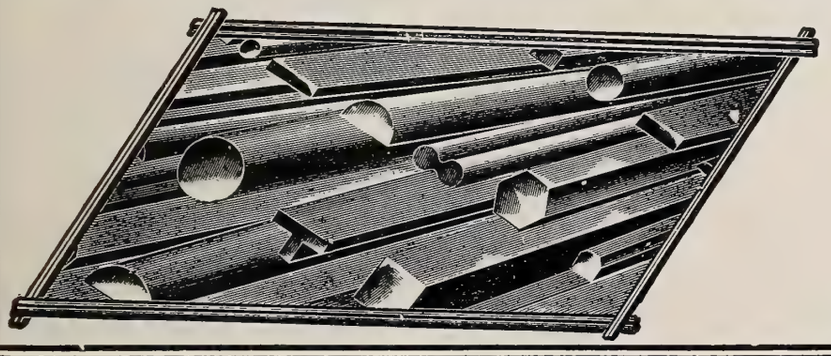
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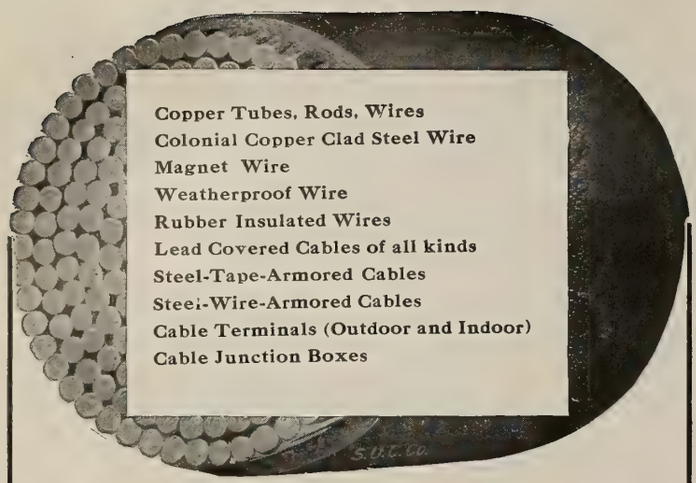
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Montreal Office: 404 NEW BIRKS BUILDING

The Toronto Carpet Manufacturing Co., Limited, have recently completed a large building on Mowat Avenue, adjacent to their present plant, and will eventually extend it north to King Street. It has been erected to house the carding and spinning plant, which required extra space to take care of the large demands upon it from the carpet department and the Barrymore Cloth Co.

The Albion Knitting Co have recently begun operations in a building on Park Street, Peterborough, formerly used as a school. Some of their machinery is placed and some fifteen hands are at work. More will be taken on as the machinery arrives. Toronto interests are behind the enterprise.

The Winnipeg Ceiling & Roofing Co., Limited, Winnipeg, are erecting a brick addition to their factory, 100 x 108 feet, with travelling crane, the purpose being for the manufacture of large oil containers, steel gasoline drums and kitchen range boilers. They are also building a distributing warehouse at Regina.

About $300,000 will be spent by the Spectator Printing Co., Hamilton, in building and equipping a new plant for the production and publishing of the *Spectator*. The new building will be a two-storey and basement fireproof structure, with a floor space of 34,000 square feet. The plant will be moved from the present building in July, 1920.

The Frost Steel & Wire Co., Limited, Hamilton, are enlarging their plant by the erection of a reinforced concrete extension, 90 x 60 feet, three storeys above grade, in which they will instal wire-making and fence-weaving machines. They expect to secure an increased production of approximately 25 per cent.

The Elgin Gas Motor Co., reference to whose location in Winnipeg was made in the November issue, are occupying a factory building which they themselves erected at 1424 Whyte Ave., Winnipeg. It is a brick building, 100 x 66 feet, three storeys. Fifty per cent. of the stock of the Canadian company is controlled by the parent company in Elgin, Ill.

The Canadian Tube & Iron Co., Limited, Montreal, are enlarging their wire mill building by an addition 100 x 83 feet, two storeys in height. This will enable them to secure an increased production in their wire and screw departments. They expect the building to be completed early in the New Year, when they will take on a number more men.

A three-story extension, 280 x 80 feet, is being added to their plant in Montreal by the Alaska Bedding, of Montreal, Limited. They are making the addition in the ordinary course of business, as they have been very much cramped for manufacturing space for a long time. The addition will be ready for occupancy early in 1920.

A new machine shop, 50 x 80 feet, is being erected by the Imperial Steel & Wire Co., Limited, Collingwood, and will be completely equipped with machinery. The Company have under consideration the manufacture of several new lines, but have not yet come to any decision. The plant will be capable of handling additional work to present lines.

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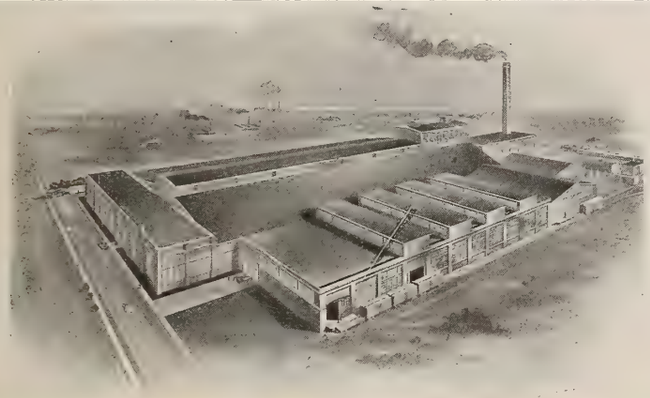
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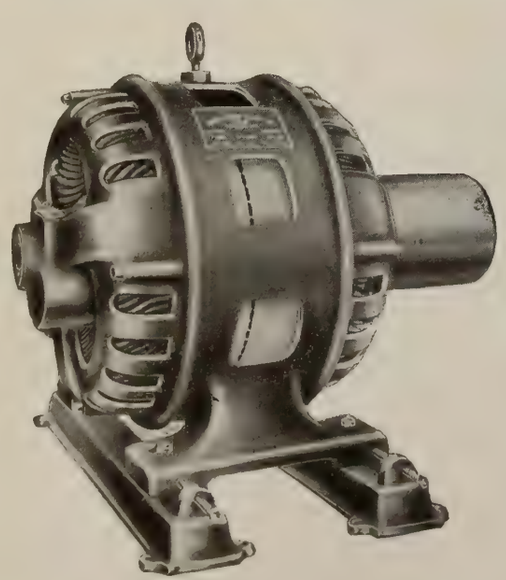
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REPAIR ALL KINDS OF ELECTRICAL MACHINERY

The Manufacturer's Bookshelf

A Useful Reference Book

Who's Who and Why, 1919-1920. Edited by B. M. Greene. Toronto: International Press, Limited.

This valuable compilation of biographical information about prominent Canadians represents an immense amount of painstaking research work. The volume extends to 1,524 pages, and averaging about three sketches to a page, contains references to some 4,500 persons. The inclusion of photographs of most of the people referred to adds considerably to the interest of the work, while the data about each person is as extended as it is possible to make it in the limited space at command. The editor, Mr. Greene, has done his work carefully and with good judgment and, if mistakes have crept into the book, they are rather to be attributed to the failure of those dealt with to correct proofs than to any shortcomings of the editor. On the whole it is a volume which those who wish to keep posted on personalities of the day cannot afford to be without. An index in the front gives rapid access to the material about any desired person.

A Book of Memoirs

Reminiscences, Political and Personal. By Sir John Willison. Toronto: McClelland & Stewart, Limited. Cloth, $4.00.

From a Canadian standpoint this is undoubtedly the outstanding book of the year. Indeed of its kind, it is one of the most notable volumes yet produced in the Dominion. To few men have the opportunity and the facility been given to write so intimately and entertainingly of the outstanding figures in the public life of the country during the past forty years. A trained journalist and one whose successive positions as member of the Press Gallery at Ottawa, editor of the Toronto *Globe* and editor of the Toronto *News* have brought him into close touch with the currents of political thought and action in Canada, Sir John has combined qualities and experiences which have fitted him admirably for a task to which he must have applied himself with a good deal of pleasure and satisfaction.

The book has been written with every evidence of impartiality. Political bias is absent from its pages and the author deals with the men and events of bygone days just as they appeared to a friendly and deeply interested onlooker. Through a plentiful use of anecdotal matter he has succeeded in imparting a light and vivacious tone to the work, which certainly adds to its charm. One can only regret that more of the scenes and surroundings of those earlier times have not been described. As it is Sir John has confined his effort very largely to sketching personalities and has left to the imagination the picturing of the various settings in which each played his part.

Not unnaturally, Canada's fiscal policy occupies a place in the book, though it is not dealt with in any controversial way. Sir John recalls the inception of the National Policy and reminds his readers that for a time it was doubtful whether it would be the Liberal or the Conservative party that was destined to sponsor protection.

"There is reason to believe," writes Sir John, "that if the Mackenzie Government had committed itself to higher duties, the Conservative Opposition would have adhered to

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low tariff. The common story is that when Sir Richard Cartwright arose to deliver the budget speech of 1876 it was not known if he would declare for or against higher duties, while Tupper, who was to follow, knew only that he would not agree with Cartwright." Sir John quotes N. F. Davin, W. F. Maclean, Dalton McCarthy and T. C. Patteson to show that Sir John A. Macdonald and the Conservative party were backward in advocating a policy of protection and only took it up because their opponents failed to do so.

Dealing with Edward Blake's resignation of the Liberal leadership, Sir John attributed his withdrawal in part at least to differences on the tariff question with Sir Richard Cartwright. Blake was not a free trader and Sir John quotes from two of his speeches to show that he held very sensible views on the subject of protection. Speaking at Malvern in 1887, Blake said: "No man, I care not how convinced an advocate of absolute free trade for Canada he may be, has yet suggested a practical plan whereby our great revenue needs can be met otherwise than by the continued imposition of very high duties on goods similar to those we make or can make within our own bounds or on the raw material. I invite the most ardent free trader in public life to present a plausible solution of this problem, and I contend that he is bound to do so before he talks of free trade as practicable in Canada. I have not believed it soluble in my day, and any chance of its solubility, if any chance there were, has been destroyed by the vast increase of our yearly charge, and by the other conditions which have been created. The thing is removed from the domain of practical politics." Surely very pertinent remarks for the present day!

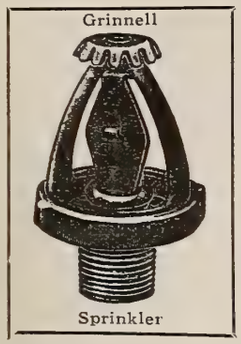
One might continue to quote readable extracts from this new book to considerable length, but it is scarcely necessary to do so in order to demonstrate its value. A word should be added, however, regarding the printed work itself. Sir John, as President of the Canadian Reconstruction Association, may justifiably pride himself on the fact that his book is an all-Canadian production. It has been set up in a Canadian printing office, printed on Canadian-made paper, bound in a Canadian bindery and distributed by a Canadian publisher. And withal, it is a piece of work that compares most favorably with the best book manufacturing practise of other countries.

Work of the Conservation Commission

Conservation in 1918. By James White, F.R.G.S., M.E.I.C., Assistant to Chairman, Deputy Head, Commission of Conservation. Reprinted from Tenth Annual Report of the Commission of Conservation. Ottawa, 1919.

The field covered by the Commission of Conservation is thoroughly set forth in Mr. White's review of the activities of the Commission during 1918. Housing, public health, forests, lands, water-powers, mines, fuel shortage, fire prevention, game and wild life are all subjects in which the Commission is interested and is doing effective work. All good Canadians who are concerned with the conservation of the country's national resources would do well to read through this report, which gives in brief and compact form a good general idea of the problems that are being dealt with.

Under the name of the Kitchener Envelope & Stationery Co., an industry for the manufacture of envelopes and stationery has been established in Kitchener. Floor space has been rented, and as soon as all machinery has been installed, the company will be in a position to make any size envelope and in large quantities. The company has the financial backing of Mr. Arthur Boehmer, who has had many years' experience in the manufacturing of paper boxes.



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Marine Insurance effected at rates equal to those given from New York.

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The Norwegian Market

Opportunities for Trade Between Canada and the Scandinavian Countries Declared Good

That Canadian manufacturers could, with advantage to themselves, pay more attention to Scandinavian markets, especially that of Norway, is the opinion of H. E. Morton, commercial editor of *The Winnipeg Telegram*, who is closely in touch with conditions in Northern European countries.

Although Norway's shipping losses were considerable during the war, says Mr. Morton, these were greatly counterbalanced by the large amount of carrying done in Norwegian bottoms, Norske captains being among the most daring in running the gauntlet of German submarines. Their friendliness to Great Britain also impelled them to throw their lot in on the side of that country, with the result that to-day Norway is one of the most favored nations in Northern Europe.

Speaking financially—Norway does not ask for that extended credit which manufacturers are being asked to grant many other European countries, especially those in the Mediterranean. She has the cash for her size, and, if needs be, can pay for goods on the nail; but she wants them and wants them badly.

That the Norwegian Government is alive to the opportunities for trade with Canada is shown by the recent starting of a direct line of ships from Montreal to Norway, the first boat, the *S.S. Ranefjord* sailing on October 26. Unfortunately the season is late for many more sailings this winter; on account of the ice on the St. Lawrence, but next spring will, it is expected, see several large boats on this route, for which the C.P.R. is agent. Later, also a passenger service direct to Norway may also be started.

In the meanwhile, manufacturers wishing to be early in the market can ship via the Norwegian-American line from New York to Bergen or Christiania, or by the Scandinavian Line from New York to Sweden and Denmark.

Exhibition of Timber

Department of Overseas Trade of the British Government Announces Holding of Exhibition

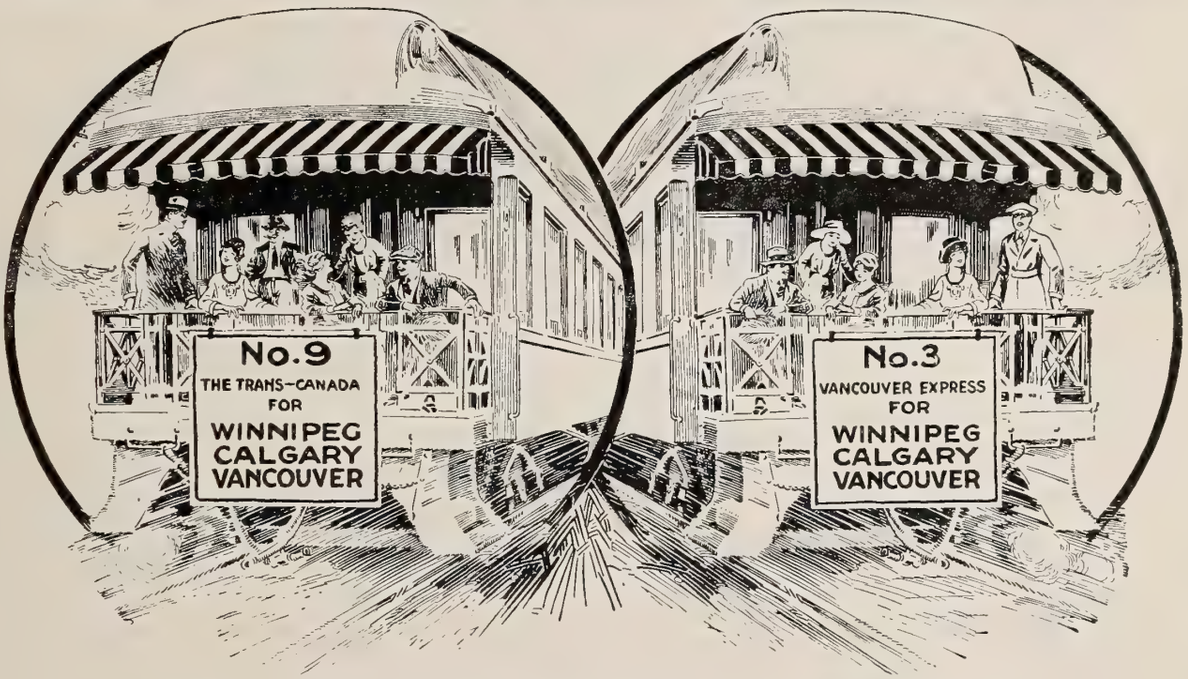
The British Trade Commissioners in Canada have been notified by the Department of Overseas Trade of the British Government that the Department are organizing an exhibition of timbers grown within the British Empire, to take place in London from the 5th July to 17th July, 1920.

The classification embraces: (*a*) Specimens of timber (polished and unpolished); (*b*) Exhibits demonstrating the various uses to which timbers are put, viz., floors, panelling, staircases, furniture, ply wood, and articles of everyday use; (*c*) Wood pulp.

A committee has been formed to arrange all details connected with the exhibition, and includes representatives of Colonial Office, Crown Agents for the Colonies, Government of India, Self-Governing Dominions, Forestry Authority, British Societies interested in the production and utilization of timber.

The main object of the exhibition is to bring prominently before architects, inspectors, firms who have to specify timbers in their contracts, as well as the users and consumers of timbers, the full range of Imperial grown timbers and especially those timbers which up to the present are only very slightly, if at all, known in this country, and at the same time to demonstrate the chief uses for which such timbers are suitable.

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41 Hours to Winnipeg
70 Hours to Calgary
96 Hours to Vancouver

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Sailings 20th of each month.

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Recent Trade Enquiries

A List of Enquiries Received from Various Sources including the Canadian Trade Mission, London; the Canadian Trade Commission, Ottawa; the Department of Trade and Commerce, Ottawa; and the Commercial Intelligence Department, C.M.A., Toronto.

DOMESTIC TRADE ENQUIRIES.

217a. Quebec.—A correspondent wishes to get in touch with firms in Ontario or the Western Provinces with a view to selling their products in Quebec.

FOREIGN TRADE ENQUIRIES.

218. Cairo.—A commission merchant in Cairo wishes to be connected with Canadian trade. He can sell large quantities of the following: News paper, printing paper, envelopes, flour, copper and iron stoves, agricultural machinery, wood of all sorts, and iron for constructing concrete houses.

219. Wire.—A Liverpool firm asks to be placed in touch with exporters of galvanized annealed mild steel wire, 8 to 24-wire gauge, and galvanized crucible steel wire, 85-90 tons per square inch, 12 to 30-wire gauge.

220. Motor Accessories.—A Liverpool firm wishes to hear from Canadian firms desiring agents for good lines of the above.

221. Motor Accessories.—A Liverpool firm asks to be placed in touch with exporters of the above.

222. Three-Plywood.—A Grimsby firm are prepared to purchase, cash against documents, large quantities of birch or alder plywood, in sheets 40 inches to 60 inches by 30 inches to 50 inches wide, and in thickness 3, 4, 5, 6 and 9 m/m.

223. Kitchen Cabinets.—A Liverpool firm would like to receive offers of kitchen cabinets and household labor-saving devices.

224. Maple Roller Blocks.—A Liverpool firm would like to get into communication with exporters of the above.

225. Pocket Lamp and Torch Batteries.—A London firm of importers of lighting accessories wish to obtain from Canada supplies of pocket lamp and torch batteries and ask for the addresses of manufacturers.

226. Machinery, Etc.—A recently demobilized Canadian officer who proposes to establish himself in business as the representative of Canadian manufacturers in the United Kingdom, would like to secure agencies in any line not requiring expert technical knowledge, but particularly in machinery, in which he possesses experience.

227. Iron and Steel Bars, Gas Pipes, Bolts, Nuts, Screws, Leather and Balata Belting.—A London firm of merchants and manufacturers' representatives seek supplies of iron and steel bars, gas tubes, bolts and nuts, screws, leather and balata belting for the Portuguese, Grecian and Near Eastern markets, and invite offers from Canadian manufacturers. References available at the Department of Trade and Commerce.

228. Canned Fruits.—The London branch of a company trading in Alsace-Lorraine wish to get into communication with Canadian manufacturers of high quality canned fruits.

229. An Italian firm is interested in the import of the following articles: Food products, metals, nickel ingots, nickel anodes, iron, steel products and pig iron. They desire quotations on the above commodities, C.I.F. Genoa, and are in a position to pay cash against documents.

230. Condensed Milk.—A company in Leeds ask for the addresses of Canadian manufacturers and exporters of condensed milk.

231. Cairo.—A commission merchant in Cairo is desirous of getting in touch with Canadian manufacturers of the following: box calf, patent leather, side leather, tinned goods, Canadian ham and bacon, flour, wood products. He is in a position to export gum, sesame, hides and cotton seed.

232. Leather and Shoe Grindery.—A leather merchant in Belfast is desirous of getting into communication with Canadian tanners, curriers and manufacturers of shoe grindery such as rivets, wood pegs, etc.

233. Maple Roller Blocks.—A Liverpool firm who are large primary distributors of the above, ask to be placed in touch with exporters.

234. Maple Roller Blocks.—A Lancaster firm who are large consumers of the above, ask to be placed in touch with exporters.

235. England.—A manufacturers' agent in London is anxious to secure agencies for Canadian soaps, perfumes, confectionery and essential oils. He already represents several houses in France and Italy.

236. Pharmaceutical Preparations, Chemicals, Surgical Instruments.—A correspondent in Brussels, Belgium, seeks the agency of Canadian manufacturers of pharmaceutical preparations, chemicals and surgical instruments.

237. Synthetic Drugs, Essential Oils, Etc.—A London company, who are manufacturers of, and dealers in, chemicals, report an opening for synthetic drugs, essential oils, etc., and wish to get into touch with Canadian manufacturers.


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238. Portable Houses.—A London company ask for the addresses of Canadian manufacturers of portable houses.

239. Vulcanite Dressing Combs.—A London firm enquires for the addresses of Canadian manufacturers of vulcanite rubber dressing combs.

240. Boots and Shoes, Worsteds, Flannels.—A London manufacturers' agent, claiming a connection among buyers in the United Kingdom and also in India, Egypt, and other eastern countries, wishes to get into communication with Canadian manufacturers of boots and shoes, worsted cloth and flannels, wishing to develop trade in these countries.

241. Foodstuffs, Sweets, Leathers.— A manufacturers' agent in Egypt, with good references, wishes to get into communication with Canadian manufacturers of the above who are in a position to start trade with the Middle East.

242. Egg Boxes and Egg Case Fillers.—A London provision agent wishes to get into touch with Canadian manufacturers of egg boxes and also of egg case fillers.

243. Agencies.—A Scotchman, who has been resident in Canada for a number of years and who has been brought up in the manufacturing business, wishes to represent some Canadian manufacturer in England or France. He has a good knowledge of French.

244. Warehouse Keepers and Cargo Supervisors.—As many Canadian houses shipping to England may sometimes require their shipments supervised on landing and distributed inland, a firm in Liverpool are in a position to furnish the following service: raw rubber and general produce experts; warehouse keepers and cargo supervisors; cartage and haulage contractors; general transport agents, etc.

245. Boots and Shoes.—A firm in Paris wishes to get into communication with Canadian manufacturers of boots and shoes. They have a good connection in around Paris, being agents for several well known French manufacturers.

246. A firm of industrial agents, with headquarters in Paris, consider the moment an opportune one to introduce Canadian industrial products in the French and Grecian markets and would like to get in touch with Canadian manufacturers.

247. Chenille Table Covers.—A firm in Sydney, Australia, wishes to get in touch with the Canadian manufacturer of Star Brand Chenille Table Covers.

248. French Olive Oil.—A correspondent in Liverpool wishes to get into communication with Canadian importers of pure olive oil. He represents a premier firm in France and is anxious to trade with Canada.

249. Australia and South Africa.—An import and export house in New York desires the names of some Canadian manufacturers particularly interested in export trade with South Africa and Australia. They have already shipped Canadian goods to those countries, but wish to further develop this trade. Their references are good.

250. England.—A newly-registered company of government contractors and manufacturers is prepared to accept agencies for Canadian firms for the following classes of merchandise: leather belting, engineering supplies, tool and lathe makers, belt lace makers, pulp and paper manufacturers.

251. Canned Salmon and Fruits.—A London firm trading throughout the East wishes to get into touch with Canadian packers of canned salmon, and also of canned fruits (pears, peaches, etc.) interested in the Indian, Egyptian and similar markets.

New Canadian Patents

A Number of Interesting Devices Which Have Lately been Patented in Canada

The following is a list of Canadian patents recently issued through the agency of Messrs. Ridout & Maybee, 156 Yonge Street, Toronto:

John L. H. Blackwood, button stick; Edward B. Killen, vehicle spring suspensions; Gutta Percha & Rubber, Limited, rubber mat; Fred L. Rapson, lifting jacks and the like for use on motor, road, and other vehicles; Woodington & Young, abrasive wheel; Huan A. Matear, internal spring heel seats; J. Stone & Co., Limited, valves for fluid pressure systems adapted for operating bulkhead and like doors; Farm & Dairy Machinery Co., pneumatic valve actuating devices; Edward Manser, acid still; Joseph Mayne, plow; Ewart McLaughlin, sockets for automobile curtain rods; Charles Taylor, dinner carry-alls; Gutta Percha & Rubber, Limited, process of forming rubber fabrics; Henry P. Fletcher, means for the conversion of water pastes into oil pastes by chemical and mechanical action; Thos. W. S. Hutchins, the manufacture of lamp black; Jabez Muskett, hose couplings and hose attaching devices; Diaphone Signal Co., Limited, metal bending and forming machine; Nils Testrup, methods of conducting high temperature reactions; John Forsyth, Limited, reversible cuffs; E. O. Williams, slipways for the construction of reinforced concrete ships, barges, floating structures and the like.

The Western Wheel & Foundries, Limited, St. Boniface, Man., expect to be operating by January 1. Their plant, which is nearing completion, consists of the main shop, 200 x 72 feet; cupola room, 100 x 45 feet, and wheel brake room, 80 x 40 feet, the whole costing approximately $60,000. They will manufacture car wheels and brake shoes for railway equipment.

HON. W. R. ROLLO,
Minister of Labour.

W. A. RIDDELL, M.A., Ph.D.,
Deputy Minister

Department of Labour

ONTARIO GOVERNMENT

Administration of:

The Department of Labour Act
The Bureau of Labour Act
The Stationary and Hoisting Engineers Act
The Building Trades Protection Act
The Factory, Shop and Office Building Act
The Steam Boiler Act
Employment Bureaus
Investigation and Research

Employment offices are in operation in 35 cities and towns of the Province, and are the Ontario units of the recently organized "Employment Service of Canada."

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The value of these bureaus will increase in proportion to the extent to which they are used by employers.

Notice to Steam Users

At the last Session of the Legislature, the Act respecting Stationary and Hoisting Engineers was amended, said amendment requires that on and after January the 1st, 1920, all stationary steam plants in the Province of Ontario must be registered with the Board of Stationary and Hoisting Engineers. Application forms for this purpose will be forwarded on request. The boiler horsepower and other information contained in these application forms is to be used for statistical purposes.

A Registration Certificate will be issued to each applicant.

W. C. McGHIE,
Chairman of Board
15 Queen's Park, Toronto

Buyers' Guide to Canadian Manufactures

List of Articles which will Enable the Purchaser to Know the Manufacturers of Made-in-Canada Goods. For Rates of Insertion in this Department write to the Advertising Manager of INDUSTRIAL CANADA, C.M.A., Toronto, Ont.

ABATTOIR MACHINERY AND SUPPLIES
*The John Whitfield Company, Toronto, Ont.
ABRASIVES
*Coralox, Limited, Hamilton, Ont.
*Canadian Hart Wheels, Limited, Hamilton, Ont.
*Dominion Abrasive Wheel Co., New Toronto, Ont.
ACCOUNT BOOKS
*The Brown Bros., Ltd., Toronto.
ACCUMULATORS, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.
ACETYLENE GAS
*The Prest-O-Lite Company of Canada, Ltd., Toronto, Ont.
ACETYLENE GAS BURNERS
Economic Acetylene Burner Co., Toronto, Ont.
*The Prest-O-Lite Company of Canada, Ltd., Toronto, Ont.
ACID PROOF COATINGS
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
ACIDS
*The Grasselli Chemical Co., Ltd., Toronto.
*The Nichols Chemical Co., Ltd., Montreal, Que.
ADVERTISING NOVELTIES
Lawson & Jones, Ltd., London, Ont.
AERATED BEVERAGES
Charles Gurd & Co., Ltd., Montreal, Que.
J. J. McLaughlin, Ltd., Toronto.
AIR COMPRESSORS
*Canadian Ingersoll-Rand Co., Montreal, Que.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
AIR DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
ALCOHOL
*Canadian Industrial Alcohol Company, Ltd., Montreal, Que.
Hiram Walker & Sons, Limited, Walkerville, Ont.
ALUMINUM
*Northern Aluminum Co., Ltd., 1805 Traders Bank, Toronto,
ALUMINUM CASTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.
AMMONIA
Canadian Ammonia Co., Ltd., Toronto, Ont.
ANCHORS, all steel
Beauchemin & Fils, Ltd., Sorel, Que.
ANGLE BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, Que.
*The Steel Company of Canada, Ltd., Hamilton, Ont.
ARSENIC
*Deloro Smelting & Refining Co., Limited, Deloro, Ont.
ARTIFICIAL LIMBS
Chesley Artificial Limb Co., Ltd., Hantsport, N.S.
ASBESTOS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
ASBESTOS SHEATHING
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
ASBESTOS SHEET AND PISTON PACKINGS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
ASBESTOS STEAM PIPE AND BOILER COVERINGS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
ASBESTOS TEXTILES
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
ATTACHMENT PLUGS
*Crouse-Hinds Co., Ltd., Toronto.
AUTOGRAPHIC REGISTERS
*Autographic Register Co., Ltd., Montreal, Que.
AUTOGRAPHIC REGISTER SYSTEMS
Business Systems, Ltd., Toronto.
AUTOMOBILE ACCESSORIES
*McKinnon Industries Limited, St, Catharines, Ont.
*Northern Electric Co., Limited, Montreal, Que.
*Tallman Brass & Metal Co., Hamilton, Ont.
AUTOMOBILE PARTS
*Dominion Forge & Stamping Co., Walkerville, Ont.
*McKinnon Industries Limited, St. Catharines, Ont.
AWNING CORD (cotton)
Hamilton Cotton Co., Hamilton, Ont.
AXLES
Canada Forge Co., Ltd., Welland, Ont.
Guelph Spring & Axle Co., Ltd., Guelph, Ont.
AXLES, carriage and automobile
Guelph Spring & Axle Co., Ltd., Guelph, Ont.
BABBITT METAL
Alonzo W. Spooner, Ltd., Port Hope, Ont.
*Hoyt Metal Co., Toronto, Ont.
*The Canada Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
BACON
E. W. Fearman Co., Ltd., Hamilton, Ont.
BAGS
*Scythes & Co., Ltd., Toronto.
BAGS, Cotton
The Canadian Bag Co., Limited, Montreal, Que.
BAGS, jute
The Canadian Bag Co., Limited, Montreal, Que.
*Scythes & Co., Ltd., Toronto.
BAGS, travelling
J. Eveleigh & Co., Ltd., Montreal.
Lamontague, Ltd., Montreal, Que.
The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.
BAND RESAWS
*Canada Machinery Corporation, Limited, Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
BAND SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
BANK FITTINGS
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.
BANK AND OFFICE RAILINGS AND CAGES
*Canada Wire and Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*The Geo. B. Meadows, Toronto, Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.
BANK SIGNS AND FITTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.
BARRELS, steel, and containers
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
BARS, iron
London Rolling Mill Co., Ltd., London, Ont.
BARS, steel
London Rolling Mill Co., Ltd., London, Ont.
BASEBALL GOODS
A. J. Reach Co., Brantford, Ont.
BATHS, enamelled
Amherst Foundry Co., Ltd., Amherst, N.S.
BATTERIES, dry
The Canadian National Carbon Co., Ltd., Toronto, Ont.
BATTERIES, Flashlight
The Canadian National Carbon Co., Ltd., Toronto, Ont.
BATTERIES, Storage
The Canadian National Carbon Co., Ltd., Toronto, Ont.
BEARINGS
*The Chapman Double Ball Bearing Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
BEARINGS, bronze
*Tallman Brass & Metal Co., Hamilton, Ont.
BEARINGS, pillow block and upright
*Canadian Fairbanks-Morse Company, Ltd., Montreal, Que.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
BEDS, camp folding
*Otterville Mfg. Co., Ltd., Otterville, Ont.
BEEF
E. W. Fearman Co., Ltd., Hamilton, Ont.
BELTING, chains
*Canadian Link-Belt Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
BELTING, elevator
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
BELTING, leather
The Beardmore Belting Co., Ltd., Toronto, Ont.
*J. L. Goodhue & Co., Danville, Que.
*Sadler & Howarth, Montreal.
*The D. K. McLaren Belting Co., Ltd., Montreal, Que.
*The J. C. McLaren Belting Co., Ltd., Montreal, Que.
BELTING, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha and Rubber Ltd., Toronto, Ont.
BELTING, stitched cotton duck
*Dominion Belting Co., Ltd., Hamilton, Ont.
BENT GOODS
The Crown Lumber Co., Woodstock, Ont.
BICYCLES AND ACCESSORIES
*Canada Cycle and Motor Co., Ltd., Toronto, Ont.
BISCUITS
The Montreal Biscuit Co., Montreal, Que.
BLACK SHEETS
*A. C. Leslie & Co., Montreal, Que.
BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
J. Walsham & Son, Ltd., Bolton, Ont,
BLANKETS, horse
Slingsby Mfg. Co., Ltd., Brantford, Ont.
J. Walsham & Son, Ltd., Bolton, Ont.
BLASTING ACCESSORIES
Canadian Explosives, Ltd., Montreal, Que.
BLEACHING POWDER
Canadian Salt Co., Ltd., Windsor Ont.
BLOWERS
*Sheldons, Ltd., Galt, Ont.
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
BOARDS, paper, fibre, press
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
BOATS OF ALL KINDS
Peterboro Canoe Co., Ltd., Peterboro, Ont.
BOBBINS
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
BOILER COMPOUND
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
BOILER COMPOUND AND OILS
Electric Boiler Compound Co., Ltd., Guelph, Ont.
BOILER LININGS AND COVERINGS
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
BOILERS
*M. Beatty & Sons, Ltd., Welland, Ont.
*Darling Bros., Montreal, Que.
*Goldie & McCulloch Co., Limited, Galt, Ont.
*Lauzon Engineering Ltd., Levis, Que.
*E. Leonard & Sons, Ltd., London, Ont.
J. & R. Weir, Montreal, Que.
Taylor-Forbes Co,, Ltd., Guelph,
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
BOILERS, hot water or steam
Steel & Radiation Ltd., Toronto.
Warden King, Ltd., Montreal.
BOILERS, steam
Canadian Ingersoll-Rand Co., Sherbrooke, Que.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
BOILERS, steam and brass work
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
BOILER STANDS
Anthes Foundry Ltd., Toronto.
BOLSTERS
*Canadian Car & Foundry Co., Ltd., Montreal, Que.
BOLTS AND NUTS
*The Canadian Tube & Iron Co., Ltd., Montreal, Que.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Company of Canada, Ltd., Hamilton, Ont.
Starr Mfg. Co., Ltd., Dartmouth, N.S.
BOOKBINDERS
R. G. McLean, Toronto.
*The Brown Bros., Ltd., Toronto.
The Mortimer Co., Ltd., Ottawa, Ont.
BOOKCASES
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
BOOKCASES, sectional (Gunn)
The George McLagan Furniture Co., Ltd., Stratford, Ont.
BOOKLETS
R. G. McLean, Toronto.
BOOKS, blank
*The Brown Bros., Ltd., Toronto.
BOOTS AND SHOES
Ames-Holden-McCready, Limited, Montreal, Que.
J. Leckie Co., Ltd.
The John Ritchie Co., Ltd., Quebec, Que.
BOXES
*Crouse-Hinds Co., Ltd., Toronto.
BOXES, cellular board
*Hinde & Dauch Paper Co. of Canada, Limited, Toronto.
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls.
BOXES, Fibre Board
*Hinde & Dauch Paper Co. of Canada, Limited, Toronto.
BOXES, rattle and soap
The Arlington Co. of Canada, Ltd., Toronto, Ont,
BOXES, steel shop
*Steel Trough and Machine Co., Ltd., Tweed, Ont.

*For Display Advertisement see Index, Page 41

BOXES AND SHOOKS, wooden
The C. Beck Mfg. Co., Ltd., Penatanguishene, Ont.
BOXES, wooden
G. & J. Esplen, Montreal, Que.
Barchard & Co., Ltd., Toronto.
BOXBOARDS, for making paper boxes
*Canada Boxboard Co., Limited, Montreal, Que.
BRAIDS AND TRIMMINGS
The Moulton Mfg. Co., Limited, Montreal, Que.
BRAKE SHOES
*Canadian Hart Wheels, Limited, Hamilton, Ont.
BRAKE SHOE BACKS
*The John Whitfield Company, Toronto, Ont.
BRANDS, burning
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
BRASS BOLTS AND NUTS
*Tallman Brass & Metal Co., Hamilton, Ont.
BRASS AND BRONZE WIRE
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
BRASS, BRONZE and ALUMINUM LETTERS
*Tallman Brass & Metal Co., Hamilton, Ont.
BRASS ENGRAVERS
Pritchard, Andrews Co, of Ottawa, Ltd., Ottawa, Ont.
BRASS FOUNDERS AND FINISHERS
*The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
BRASS GOODS
*The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Mueller Mfg. Co., Sarnia, Ont.
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
*The Kerr Engine Co., Limited, Walkerville, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
BRASS PLATES
Geo. Booth & Son, Toronto.
*Tallman Brass & Metal Co., Hamilton, Ont.
BRASS RODS
*Tallman Brass & Metal Co., Hamilton, Ont.
BRASS RODS, SHEETS AND PLATES
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.
BRASS SHEETS AND PLATES
*Dominion Copper Products Company, Ltd., Montreal, Que.
BRASS SIGNS AND MEMORIALS
*Tallman Brass & Metal Co., Hamilton, Ont.
BRASS TUBING, seamless
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Company, Ltd., Montreal, Que.
BRASS WIRE
Canadian Seamless Wire Co., Ltd., Toronto.
*Tallman Brass & Metal Co., Hamilton, Ont.
BRASS WORK, church
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
BRASS WORK, special
Bawden Machine Co., Ltd., Toronto, Ont.
*H. Mueller Mfg. Co., Ltd., Sarnia, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
BRICK
Interprovincial Brick Co. of Canada, Limited, Toronto.
National Brick Co. of Laprairie, Laprairie, Que.
Port Credit Brick Co., Port Credit, Ont.
The Citadel Brick & Paving Block Co., Ltd., Quebec, Que.
BRICK, enamel
National Brick Co. of Laprairie, Laprairie, Que.
BRICK, pressed
National Brick Co. of Laprairie, Laprairie, Que.
The Citadel Brick & Paving Block Co., Ltd., Quebec, Que.
BRICK, rubbing
*Canadian Hart Wheels, Limited, Hamilton, Ont.
BRICK, sewer.
National Brick Co. of Laprairie, Laprairie, Que.
BRIDGES, Railway and Highway
*Hamilton Bridge Works Co., Ltd., Walkerville, Ont.
*The Canadian Bridge Co., Ltd., Hamilton, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*Dominion Bridge Co., Montreal.
*Mackinnon Steel Co., Ltd., Sherbrooke, Que.
*Manitoba Bridge & Iron Works, Ltd., Winnnpeg, Man,
BROOMS
Simms, T. S., & Co., Limited, St. John, N.B.
Stevens-Hepner Co., Limited, Port Elgin, Ont.
BRONZE SHEETS AND PLATES
*Dominion Copper Products Company, Ltd., Montreal.
BRONZE SHEETS, RODS, PLATES
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.
BRONZE TUBING, seamless
*Dominion Copper Products Company, Limited, Montreal,
BRUSHES
Simms, T. S., & Co., Limited, St. John, N.B.
Stevens-Hepner Co., Ltd., Port Elgin, Ont.
BRUSHES, carbon
Canadian National Carbon Co., Ltd., Toronto.
BUCKET TANKS
*MacKinnon Steel Co., Ltd,, Sherbrooke, Que.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
BUCKLES, shoe and coat
Parmenter & Bulloch Co., Limited, Gananoque, Ont.
BUCKLES, harness and trunk
*McKinnon Industries, Ltd., St. Catharines, Ont.
BUILDING BLOCKS, vitrified, salt glazed
Standard Clay Products, Ltd., St. Johns, Que.
BUILDING FELT AND PAPER
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont,
*The Barrett Co., Ltd., Toronto and Montreal.
BURLAPS
The Canadian Bag Co., Limited, Montréal, Que.
*Scythes & Co., Ltd., Toronto.
BURLAPS, decorative
Dominion Oil Cloth Co., Limited, Montreal, Que.
CABLE ACCESSORIES
*Crouse-Hinds Co., Ltd., Toronto.
CABLES, electric light, power, telephone and telegraph
*Standard Underground Cable Co. of Canada, Ltd,, Hamilton, Ont.
CABLES, transmission and telephones
*Eugene F. Phillips Electrical Works, Ltd., Montreal, Que.
CABLES, transmission and cable
*Northern Electric Co., Ltd., Montreal, Que.
CABLES, wire
The Dominion Wire Rope Co., Ltd., Montreal, Que.
*The B. Greening Wire Co., Ltd., Hamilton, Ont.
CALENDARS, ADVERTISING NOVELTIES, etc.
Lawson & Jones, Ltd., London.
CAMERAS
Canadian Kodak Co., Ltd., Toronto, Ont.
CAMPERS' OUTFITTERS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
CANADA SILVER
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.
CANOES
Peterboro Canoe Co., Ltd., Peterboro, Ont.
*Canadian Canoe Co., Ltd., Peterboro, Ont.
CANS, baking powder, etc.
American Can Co., Montreal (Que.) and Hamilton (Ont.).
A. R. Whittall Can. Co., Ltd., Montreal, Que.
*MacDonald Mfg. Co., Ltd., Toronto, Ont.
CANS, fruit
American Can Co., Montreal (Que.) and Hamilton (Ont.).
A. R. Whittall Can. Co., Ltd., Montreal, Que.
*MacDonald Mfg. Co., Ltd., Toronto, Ont.
CANS, iron, lead and putty
A. R. Whittall Can. Co., Ltd., Montreal, Que.
CANS, tin
A. R. Whittall Can Co., Ltd., Montreal, Que.
American Can Co., Montreal (Que.) and Hamilton (Ont.).
*MacDonald Mfg. Co., Ltd., Toronto, Ont.
CANVAS
*Scythes & Co., Ltd., Toronto, Ont.
CAPS, cloth
John W. Peck & Co., Ltd., Montreal, Que.
CAPS FOR HUBS
*McKinnon Industries, Ltd., St. Catharines, Ont.
CARBIDE
*Canada Carbide Co., Ltd., Montreal, Que.
*Union Carbide Co. of Canada, Ltd. Works, Welland, Ont. Head Office, Toronto, Ont.
CARBONS, electric
Canadian National Carbon Co., Ltd., Toronto, Ont.
CARBONS (headlight)
*Crouse-Hinds Co., Ltd., Toronto.
CARBONIC ACID GAS
Canadian Carbonate Co., Montreal.
CARD RECORD SYSTEMS
Lowe-Martin Co., Ltd., Ottawa, Ont.
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
CARPETS AND RUGS
Toronto Carpet Mfg. Co., Limited, Toronto.
CARPETS AND RUGS, Axminster and ingrain
Toronto Carpet Mfg. Co., Ltd.
CARPETS AND RUGS, Brussels and Wilton
Toronto Carpet Mfg. Co., Ltd., Toronto, Ont.
CARPET FELTS, plain and corrugated
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
CARPET YARNS, worsted and wool
Toronto Carpet Mfg. Co., Ltd., Toronto, Ont.
CARRIAGE CASTINGS
*McKinnon Industries, Ltd., St. Catharines, Ont.
CARRIAGES, baby, etc.
Canada Furniture Manufacturers. Ltd., Woodstock, Ont.
CARRIERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
CARRIERS, box and barrel
*Canadian Mathews Gravity Carrier.
CARRIERS, brick
*Canadian Mathews Gravity Carrier Co., Limited, Toronto.
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
CARS
*Canadian Car & Foundry Co., Ltd., Montreal, Que.
*National Steel Car Co., Ltd., Hamilton, Ont.
CARS, industrial
Hammant Steel Car & Engineering Works, Hamilton, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
CARTONS, lithographed
Harris Lithographing Co., Ltd., Toronto, Ont.
CASTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.
CASTINGS, Alloy
*The Electric Steel & Metals Co., Ltd., Welland, Ont.
CASTINGS, aluminum
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Crouse-Hinds Co., Ltd., Toronto.
*Tallman Brass & Metal Co., Hamilton, Ont.
CASTINGS, brass
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Crouse-Hinds Co., Ltd., Toronto.
*Lauzon Engineering, Ltd., Levis, Que.
*Tallman Brass & Metal Co., Hamilton, Ont.
CASTINGS, brass and bronze
*Tallman Brass & Metal Co., Hamilton, Ont.
CASTINGS, grey iron
*Canadian Rumely Co., Ltd., Toronto, Ont.
*Crouse-Hinds Co., Ltd., Toronto.
*Dodge Mfg. Co., Toronto.
*Canadian Car & Foundry Co., Ltd., Montreal, Que.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*Wm. Kennedy & Sons, Ltd., Owen Sound, Ont.
*Lauzon Engineering, Ltd., Levis, Que.
CASTINGS, malleable iron
*Crouse-Hinds Co., Ltd., Toronto.
*Galt Malleable Iron Co., Ltd., Galt, Ont.
CASTINGS, steel
Beauchemin & Fils, Ltd., Sorel, Que.
*Canadian Steel Founderies, Ltd., Montreal, Que.
*Dominion Steel Foundry Co., Ltd., Hamilton, Ont.
*Electric Steel & Metals Co., Ltd., Welland, Ont.
*Hull Iron & Steel Foundry, Ltd., Hull, P.Q.
*Wm. Kennedy & Sons, Ltd., Owen Sound, Ont.
CATALOGUE MAKERS
Grip, Ltd., Toronto, Ont.
CATALOGUE COVERS, by new lithographing process
Harris Lithographing Co., Ltd., Toronto, Ont.
CAUSTIC SODA
Canadian Salt Co., Ltd., Windsor.
CAUSTICS
*Dominion Oil Co., Ltd., Hamilton.
CELLBOARD
Adams Cellboard Co., Toronto.
CEMENT GUNS
Steel & Radiation, Ltd., Toronto.
CEMENTS, High Temp.; plastic, liquid
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
CENTRIFUGAL PUMPS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
CHAINS, for elevators, conveyors and drives
*Canadian Link-Belt Co., Toronto.
CHAINS, sling
*The John Whitfield Co., Toronto.
CHAIRS
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
CHAIRS, assembly hall
Stratford Mfg. Co., Ltd., Stratford, Ont.
CHAIRS, folding
Stratford Mfg. Co., Ltd., Stratford, Ont.
CHAIRS, rattan and upholstered
Imperial Rattan Co., Ltd., Stratford, Ont.
CHAIRS FOR AUTOMOBILES, camp, boat
*McKinnon Industries, Ltd., St. Catharines, Ont.
CHECKS, swing checks, etc.
*Mueller Mfg. Co., Ltd., Sarnia, Ont.
CHEMICALS
Canadian Laboratory Supplies, Ltd., Toronto, Ont.
*Dominion Oil Co., Ltd., Hamilton, Ont.
*The Grasselli Chemical Co., Ltd., Toronto, Ont.
*The Nichols Chemical Co., Ltd., Montreal, Que.
CHEMISTS, industrial
*Milton Hersey Co., Montreal.
CHICLETS AND CHEWING GUM
Canadian Chewing Gum Co., Ltd., Toronto, Ont.

*For Display Advertisement see Index, Page 41

CIRCULAR CUTTERS, solid steel
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.
CIRCULAR SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
CLAM SHELL BUCKETS
*M. Beatty & Sons, Ltd., Welland, Ont.
CLAY, Ground.
*Interprovincial Brick Co. of Canada, Limited, Toronto.
CLOCKS, time
*International Business Machines Co., Ltd., Toronto.
CLOCKS, watchmen's
*The Bennett & Wright Co., Ltd., Toronto, Ont.
CLOSET SEATS
*Goderich Organ Co., Goderich, Ont.
CLOTHING
John W. Peck & Co., Ltd., Montreal, Que.
CLOTHING, leather and sheepskin lined coats
*A. R. Clarke & Co., Ltd., Toronto.
CLOTHING, Mackinaw
The Carss Mackinaw Clothing Co., Ltd., Orillia, Ont.
CLOTHES LINES, cotton
Hamilton Cotton Co., Hamilton, Ont.
CLUTCHES
*Dodge Mfg. Co., Ltd., Toronto.
CLUTCHES, conveyors
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
COAL
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Standard Fuel Co., Toronto, Ont.
COAL CUTTERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal.
COBALT OXIDE
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
The Coniagas Reduction Co., Ltd., St. Catharines, Ont.
COBALT METAL
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
COFFEE
S. H. Ewing & Sons, Montreal.
COLD DRAWN SHAPES, flats, squares and hexagons
*The Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*Union Drawn Steel Co.. Ltd., Hamilton, Ont.
COLD STORAGE DOORS
John Hillock & Co., Ltd., Toronto.
COLLAR BUTTONS
The Arlington Co. of Canada, Ltd., Toronto, Ont.
COLLARS
The Standard Shirt Co., Ltd., Montreal, Que.
COLLARS, coated linen
Parsons & Parsons Canadian Co., Hamilton, Ont.
COLLARS, shaft
Bond Engineering Co., Toronto.
COLORS
Brandram-Henderson, Ltd., Montreal, Que.
A. Ramsay & Son Co., Montreal.
COMBS, fine dressing and name
The Arlington Co. of Canada, Ltd., Toronto, Ont.
COMMERCIAL STATIONERY
*Brown Bros., Ltd., Toronto, Ont.
CONCRETE COATINGS, PAINTS, Etc.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
CONCRETE HARDENER AND WATERPROOFER
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
CONDUITS FOR INTERIOR WIRING
*Conduits Co., Ltd., Toronto, Ont.
CONDULET BOX FITTINGS
*Crouse-Hinds Co., Ltd., Toronto.
CONDULETS (marine)
*Crouse-Hinds Co., Ltd., Toronto.
CONFECTIONERY
Ganong Bros., Ltd., St. Stephens, N.B.
Moirs, Ltd., Halifax, N.S.
The Montreal Biscuit Co., Montreal, Que.
CONTAINER BOARD—strong container
Bathurst Lumber Co., Ltd., Bathurst, N.B.
CONTRACTOR'S PLANT
*M. Beatty & Sons, Ltd., Welland, Ont.
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Ingersoll-Rand Co., Sherbrooke, Que.
CONVEYORS
*Canadian Link-Belt Co., Toronto.
*Canadian Mathews Gravity Carrier Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
COPPER
*Eugene F. Phillips, Electrical Works, Ltd., Montreal, Que.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Consolidated Mining & Smelting Co. of Canada, Ltd., Toronto.
COPPER, SHEETS, PLATES, BARS, RODS
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto, Ont.
COPPER SHEETS AND PLATES
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Co., Ltd., Montreal, Que.
COPPERSMITHS
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
COPPER TUBING, seamless
*Dominion Copper Products Co., Ltd., Montreal, Que.
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
COPPER WIRE
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
CORKS
S. H. Ewing & Sons, Montreal, Que.
CORK CARPET
Dominion Oil Cloth Co., Ltd., Montreal, Que.
CORRUGATED PAPER BOXES
*Hinde & Dauch Paper Co. of Canada, Limited, Toronto.
Adams Cellboard Co., Toronto.
Corrugated Paper Box Co., Ltd., Toronto, Ont.
*Hinde & Dauch Paper Co., Toronto, Ont.
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.
CORUNDUM, artificial
*Coralox, Ltd., Hamilton, Ont.
CORSETS
Dominion Corset Co., Quebec, Que.
COTTONS
*Dominion Textile Co., Ltd., Montreal, Que.
*Montreal Cottons, Ltd., Valleyfield, P.Q.
COTTONADES
Hamilton Cotton Co., Hamilton, Ont.
COUPLERS
*Canadian Steel Foundries, Ltd., Welland, Ont.
COUPLINGS
Bond Engineering Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
CRANES
*Northern Crane Works, Walkerville, Ont.
*The Herbert Morris Crane and Hoist Co., Ltd., Niagara Falls, Ont.
CRANKSHAFTS
Canada Forge Co., Ltd., Welland, Ont.
*The John Whitfield Co., Toronto, Ont.
CREAM CHEESE, Ingersoll
The Ingersoll Packing Co., Ltd., Ingersoll, Ont.
CREAM SEPARATORS AND MILK CLARIFIERS
De Laval Dairy Supply Co., Peterboro, Ont.
The Renfrew Machinery Co., Ltd., Renfrew, Ont.
CREAMERY AND CHEESE FACTORY MACHINERY AND SUPPLIES
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
CREOSOTED MATERIALS
*The Barrett Co., Ltd., Toronto and Montreal.
CRUCIBLES, plumbago
Dominion Crucible Co., Ltd., Montreal, Que.
CRUSHED STONE
The Hagersville Contracting Co., Ltd., Hagersville, Ont.
CUPOLAS
*Sheldons, Ltd., Galt, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
CUPS, presentation
Standard Silver Co., Toronto, Ont.
CURLED HAIR
*Delany & Pettit, Ltd., Toronto.
CURTAINS, chenille
Hamilton Cotton Co., Hamilton, Ont.
CUTLERY
Standard Silver Co., Toronto, Ont.
CUTTERS, machine
*Pratt & Whitney Co., Dundas, Ont.
DASHES, for buggy and carriages
*McKinnon Industries, Ltd., St. Catharines, Ont.
DECALCOMANIA TRANSFERS
Canada Decalcomania Co., Toronto, Ont.
DECK PLUGS, electric marine
*Crouse-Hinds Co., Ltd., Toronto.
DENIMS
Hamilton Cotton Co., Hamilton, Ont.
DERAILS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
DESIGNERS
Ontario Engraving Co., Hamilton, Ont.
DESIGNERS AND PRINTERS OF BOOKLETS, Etc.
Grip, Ltd., Toronto, Ont.
DESKS
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
DESICCATED VEGETABLES
Grahams, Ltd., Belleville, Ont.
DINING ROOM SUITES
The George McLagan Furniture Co., Ltd., Stratford, Ont.
DIES
*Butterfield & Co.. Rock Island, P.Q.
*Pratt & Whitney Co., Dundas, Ont.
*John Whitfield Co., Toronto.
DISINFECTING APPARATUS
Spramotor Co., London, Ont.
DOOR HANGERS
*Richards Wilcox Canadian Co., Ltd., London, Ont.
DOUBLETREES
*McKinnon Industries, Ltd., St. Catharines, Ont.
DREDGES
*M. Beatty & Sons, Ltd., Welland, Ont.
DRESSING, belt
Sadler & Haworth, Montreal, Que.
DRESS AND CLOAK TRIMMINGS
J. Henry Peters Co., 1 Mincing St., Toronto, Ont.
DRIFT BOLT DRIVERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
DRILL PRESSES
*Canada Machinery Corporation, Ltd., Galt, Ont.
DRILL SHARPENERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
DRILLS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*Pratt & Whitney Co., Dundas, Ont.
DRILLS, pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
DRILLS, rock
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
DRIFT BOLTS OR SPIKES
London Rolling Mill Co., Ltd., London, Ont.
DROP FORGINGS.
*Canadian Billings & Spencer, Ltd., Welland, Ont.
*McKinnon Industries, Ltd., St. Catharines, Ont.
DROP HAMMERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
DRUMS, steel, and containers
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
DRY COLORS
P. D. Dods & Co., Ltd., Montreal.
The Imperial Varnish & Color Co., Ltd., Toronto.
R. C. Jamieson & Co., Ltd., Montreal, Que.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
DUMB WAITERS
Turnbull Elevator Mfg. Co., Toronto, Ont.
DURABLE WIRE ROPE
The Dominion Wire Rope Co., Ltd., Montreal, Que.
DYNAMITE
Canadian Explosives, Ltd., Montreal, Que.
DYNAMOS
Consolidated Electric Co., Ltd., Toronto, Ont.
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
DYNAMOS, plating
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
EIDERDOWN
Galt Knitting Co., Ltd., Galt, Ont.
ELECTRIC APPLIANCES
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
ELECTRICAL COMPOUNDS
Standard Paint Co. of Canada, Ltd., Montreal, Que.
ELECTRIC COOKING APPLIANCES
*Canadian General Electric Company, Ltd., Toronto.
ELECTRIC LAMPS
Packard Electric Co., Ltd., Toronto, Ont.
ELECTRIC PLATE WARE
Roden Bros., Ltd., Toronto, Ont.
ELECTRIC BRANDING TOOLS
*The Clemens Electrical Corporation of Canada, Ltd., Hamilton, Ont.
ELECTRIC RAILWAY EQUIPMENT
*Crouse-Hinds Co., Ltd., Toronto.
ELECTRODES, carbon
Canadian National Carbon Co., Ltd., Toronto, Ont.
ELECTROTYPING
Central Press Agency, Ltd., Toronto.
ELECTRICAL SUPPLIES
*Canadian General Electric Company, Ltd., Toronto, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
*Jones & Moore Electric Co., Ltd.,
*Northern Electric Co., Ltd., Montreal, Que.
ELECTRIC SOLDERING IRON
*The Clemens Electrical Corporation of Canada, Ltd., Hamilton, Ont.
ELECTRO-SILVER PLATED WARE
Standard Silver Co., Toronto, Ont.
ELEVATING MACHINERY
*Canadian Link-Belt Co., Toronto.
*Canadian Mathews Gravity Carrier Co., Toronto, Ont.
ELEVATORS
*Jenckes Machine Co., Sherbrooke, Que.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
Turnbull Elevator Mfg. Co., Toronto, Ont.
*The Waterous Engine Works Co., Ltd,, Brantford, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
ELEVATORS FOR ALL PURPOSES
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
ELEVATOR GATES AND DOORS
Turnbull Elevator Mfg. Co., Ltd., Toronto, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
ELEVATOR GUARDS
*The Geo. B. Meadows, Toronto.
Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
*Canada Wire and Iron Goods Co., Hamilton, Ont.
EMERY DRESSERS AND STANDS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

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EMERY GRINDERS
*Canadian Hart Wheels, Ltd., Hamilton. Ont.
EMERY WHEELS
*Canadian Hart Wheels, Ltd., Hamilton. Ont.
EMERY WHEEL GUARDS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
ENAMELS
R. C. Jamieson & Co., Ltd., Montreal, Que.
The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
ENAMEL MANUFACTURERS AND DECORATORS
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
ENAMEL AND TIN WARE
McClary Mfg. Co., London, Ont.
ENGINES
*E. Leonard & Sons, Limited, London, Ont.
*Goldie & McCulloch Co., Lt., Galt, Ont.
J. & R. Weir, Montreal, Que.
*Lauzon Engineering, Ltd., Levis, Que.
*Sheldons, Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
ENGINES, gas and gasoline
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Goold - Shapley - Muir Co., Ltd., Brantford, Ont.
*Hamilton Motor Works, Ltd., Hamilton, Ont.
London Gas Power Co., Limited, London, Ont.
*Massey-Harris Co., Ltd., Toronto.
ENGINES, gasoline, tractor, plowing and threshing
*Sawyer-Massey Co., Ltd., Hamilton, Ont.
ENGINES, hoisting
*M. Beatty & Sons, Welland, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
ENGINES, marine, gasoline and kerosene
Bruce, Stewart & Co., Ltd., Charlottetown, P.E.I.
ENGINES, steam plowing and threshing
*Sawyer-Massey Co., Ltd., Hamilton, Ont.
ELECTRICAL AND GAS FIXTURES
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
*Tallman, Brass & Metal Co., Hamilton, Ont.
ELECTRIC HEATING APPLIANCES
*Canadian General Electric Co., Ltd., Toronto, Ont.
ENGRAVERS, photo
Grip, Ltd., Toronto, Ont.
Ontario Engraving Co., Hamilton, Ont.
The Mortimer Co., Ltd., Ottawa.
ENGRAVERS, half-tone
Grip, Ltd., Toronto.
Ontario Engraving Co., Hamilton, Ont.
ENGRAVERS, wood
Ontario Engraving Co., Hamilton, Ont.
ENGRAVERS AND PRINTERS steel plate
American Bank Note Co., Ottawa, Ont.
ENGRAVERS AND PRINTERS bank note
American Bank Note Co., Ottawa, Ont.
ENGRAVING
*J. L. Jones Engraving Co., Toronto, Ont.
ENGRAVING, copper and steel plate
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
ENSILAGE AND STRAW CUTTERS
J. Fleury's Sons, Aurora, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
EVAPORATED APPLES
Grahams, Ltd., Belleville, Ont.
ENVELOPES
Barber-Ellis Co., Ltd., Toronto.
Canada Envelope Co., Montreal, Que.

EVENERS, for 2, 3, 4, 6 and 8 horses
*McKinnon Industries, Ltd., St. Catharines, Ont.
EXCELSIOR
*Delany & Pettit, Ltd., Toronto.
EXCELSIOR PADS
Parmenter & Bulloch Co., Ltd., Gananoque, Ont.
EXPERTS IN PATENT CAUSES
Ridout & Maybee, Toronto, Ont.
EXPLOSIVES, high
Canadian Explosives, Ltd., Montreal, Que.
FACE PLATE JAWS
Ker & Goodwin, Brantford, Ont.
FACTORY SUPPLIES, cheese and creamery
De Laval Dairy Supply Co., Ltd., Montreal, Que.
FANS
*Sheldons, Ltd., Galt, Ont.
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
FASTENERS, belt
*Sadler & Haworth, Montreal, Que.
FELTS, pulp and paper makers
Ayers, Ltd., Lachute Mills, P.Q.
*Beveridge Paper Co., Ltd., Montreal, Que.
FENCES AND GATES
*Dennis Wire & Iron Works Co., London, Ont.
*Canada Wire & Iron Goods Co., Hamilton, Ont.
FENCING AND GATES, woven wire
*Canada Wire and Iron Goods Co., Hamilton, Ont.
FENCING, wire
C. H. Johnson & Sons, Ltd., Montreal, Que.
FENDERS, for buggy and carriages
*McKinnon Industries, Ltd., St. Catharines, Ont.
FIBRE PAILS
*The E. B. Eddy Co., Ltd., Hull, Que.
FIBRE, Vulcanized
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
FIBREBRICK, Plastic, jointless
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
FILES
Henry Disston & Sons, Ltd., Toronto, Ont.
*The Nicholson File Co., Port Hope.
FILING CABINETS
*Office Specialty Co., Newmarket, Ont.
FILING EQUIPMENT, wood & steel
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
FILING SYSTEMS
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
Lowe-Martin Co., Ltd., Ottawa, Ont.
FIRE ALARMS
*Northern Electric Co., Ltd., Montreal, Que.
FIRE BRICK
Dominion Fire Brick & Clay Products, Ltd., Moose Jaw, Sask.
FIRE BRICK AND CLAY
Dominion Fire Brick & Clay Products. Ltd., Moose Jaw, Sask.
FIRECLAY
Jas. W. Foley & Co., St. John, N.B.
FIRE DOOR HARDWARE
Richards Wilcox Canadian Co., Ltd., London, Ont.
FIRE DOORS
*A. B. Ormsby Co., Ltd., Toronto.
*The Pedlar People, Ltd., Oshawa, Ont.
FIRE ENGINES
*Waterous Engine Works Co., Ltd., Brantford, Ont.
FIRE ESCAPES
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
FIRE EXTINGUISHERS
*A. B. Ormsby Co., Ltd., Toronto.
*Booth-Coulter Copper & Brass Co., Ltd., Montreal, Que.
*The Bennett & Wright Co., Ltd., Toronto, Ont.

FIRE FIGHTING APPARATUS
*Waterous Engine Works Co., Ltd., Brantford, Ont.
FIRE HOSE
*Canadian Consolidated Rubber Co. of Canada, Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber, Ltd., Toronto, Ont.
FIRE PREVENTION MATERIAL
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*Eureka Mineral Wool & Asbestos Co., Toronto.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
FIRE PROOF WINDOWS AND DOORS
*A. B. Ormsby Co., Ltd., Toronto.
*Pedlar People, Ltd., Oshawa, Ont.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
FIRE SPRINKLER SYSTEMS
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
*Purdy Mansell Co., Toronto, Ont.
*H. G. Vogel Co., Montreal, Que.
FIRE AND WATER DEPARTMENT
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
The Garth Co., Montreal, Que.
FISH, Atlantic Sea-Foods
Maritime Fish Corporation, Ltd., Montreal, Que.
FITTINGS FOR SOIL PIPE
Anthes Foundry, Ltd., Toronto.
FITTINGS, steam
Warden King Ltd., Montreal, Que.
FIXTURES
*Crouse-Hinds Co., Ltd., Toronto.
FLAGS
*Scythes & Co., Ltd., Toronto, Ont.
FLANGES, for wheels
*McKinnon Industries, Ltd., St. Catharines, Ont.
FLOODLIGHTS, electric
*Crouse-Hinds Co., Ltd., Toronto.
FLOORING, hardwood
Seaman Kent Co., Ltd., Meaford, Ont.
FLOUR MILL MACHINERY
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
FLUE LINERS
Standard Clay Products, Ltd., St. Johns, Que.
FORGES
*Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
*Sheldons, Ltd., Galt, Ont.
FORGINGS
Canada Forge Co., Ltd., Welland, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*McKinnon Industries, Ltd., St. Catharines. Ont.
*The John Whitfield Co., Toronto.
FORGINGS, drop
*Canadian Billings & Spencer, Ltd., Welland, Ont.
*Dominion Forge & Stamping Co., Walkerville, Ont.
*McKinnon Industries, Ltd., St. Catharines, Ont.
FOUNDRY EQUIPMENT
*Northern Crane Works, Ltd., Walkerville, Ont.
FOUNTAIN FRUITS AND JUICES
J. J. McLaughlin, Ltd., Toronto.
FOUNTAINS, drinking
*Mueller Mfg. Co., Ltd., Sarnia, Ont.
FRICTION CLUTCH PULLEYS
*Dodge Mfg. Co., Ltd., Toronto.
FROGS AND CROSSINGS, manganese
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
FUEL
Standard Fuel Co., Toronto, Ont.
FUR GARMENTS, men's and women's
Holt, Renfrew, Ltd., Quebec.
FUR GOODS
John W. Peck & Co., Ltd., Montreal, Que.
FUR TRIMMINGS, ornaments and buttons
J. Henry Peters Co., 1 Mincing St., Toronto, Ont.

FURNACES
McClary Mfg. Co., London, Ont.
The Jas. Smart Mfg. Co., Ltd., Brockville, Ont.
FURNITURE, hall
The George McLagan Furniture Co., Ltd., Stratford, Ont.
FURNITURE, office
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.
FURNITURE, reed and rattan
Imperial Rattan Co., Ltd., Stratford, Ont.
FUSE BOXES
*Crouse-Hinds Co., Ltd., Toronto.
FUSE PLUGS AND FUSES, refillable
*The Clemens Electrical Corporation of Canada, Ltd., Hamilton, Ont.
FUSES
*Economy Fuse & Mfg. Co., Montreal, Que.
GALVANIZED IRON
*A. C. Leslie & Co., Montreal.
GALVANIZED SHEETS
*Dominion Sheet Metal Co., Hamilton, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
GALVANIZERS
Acme Stamping & Tool Works, Ltd., Hamilton, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*The Pedlar People, Ltd., Oshawa.
*McKinnon Industries, Ltd., St. Catharines, Ont.
GASOLINE ENGINES
*Ontario Wind & Pump Co., Ltd., Toronto, Ont.
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
London Gas Power Co., London, Ont.
GASOLINE FIRE ENGINES
*Waterous Engine Works Co., Ltd., Brantford, Ont.
GASOLINE STORAGE SYSTEMS, special underground
S. F. Bowser & Co., Toronto.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
GASOLINE
*The Imperial Oil Co., Ltd., Toronto, Ont.
GAUGES
*Brown Engineering Corporation, Toronto, Ont.
*John Whitfield Co., Toronto.
GEARS, cut
*Brown Engineering Corporation, Toronto, Ont.
*Hamilton Gear and Machine, Toronto.
*Winnipeg Gear & Engineering Co., Ltd., Winnipeg, Man.
*The John Whitfield Co., Toronto.
GELATINE
Canada Gelatine Co., Ltd., Brantford, Ont.
GENERATORS
*Canadian Crocker - Wheeler Co., Ltd., St. Catharines, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
GENERATORS, electric
*Canadian General Electric Co., Ltd., Toronto.
GILDING METAL
*Dominion Copper Products Co., Ltd., Montreal, Que.
GLASSWARE
Dominion Glass Co., Ltd., Montreal, Que.
GLASSWARE, cut
Roden Bros., Ltd., Toronto.
GLASS FOR BUILDINGS
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLASS BENDERS
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLASS, mirror
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLOVES AND MITTS
*A. R. Clarke & Co., Ltd., Toronto.
Craig, Cowan Co., Ltd., Toronto.
GLUE
Canada Glue Co., Ltd., Brantford, Ont.
*Delany & Pettit, Ltd., Toronto.
GOLD-FILLED WIRE AND PLATE
Canadian Seamless Wire Co., Toronto, Ont.

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GOLD AND SILVER REFINERS
Canadian Seamless Wire Co., Toronto, Ont.
GRAIN CRUSHERS, rapid, easy
J. Fleury's Sons, Aurora, Ont.
GRAPE JUICE
J. J. McLaughlin, Ltd., Toronto.
The Welch Co., Ltd., St. Catharines, Ont.
GRATES
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
GRATES, revolving, anticlinker
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
GRAVITY CARRIERS
*Canadian Mathews Gravity Carrier Co., Toronto, Ont.
GREASES
*Dominion Oil Co., Ltd., Hamilton, Ont.
GRILLES, metal
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
GRINDER, bench
Bond Engineering Co., Toronto.
GRINDERS, portable
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
GRINDERS, pedestal and bench
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
GRINDING AND POLISHING MACHINERY
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
GRINDING WHEELS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
*The Dominion Abrasive Wheel Co., Ltd., New Toronto, Ont.
GRINDSTONES
*Richards - Wilcox Canadian Co., Ltd., London, Ont.
GUARDS, condulet
*Crouse-Hinds Co., Ltd., Toronto.
GUNN SECTIONAL BOOKCASES
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
GUY ANCHORS
B. J. Coghlin Co., Ltd., Montreal.
GUL RODS
*Crouse-Hinds Co., Ltd., Toronto.
GYPSUM, crushed
*Albert Mfg. Co., Hillsborough, N.B.
GYPSUM PRODUCTS
*Manitoba Gypsum Co., Ltd., Winnipeg, Man.
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
HACK SAW BLADES AND FRAMES
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HACK SAW MACHINES
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HALL FURNITURE
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
HAMS
F. W. Fearman Co., Ltd., Hamilton, Ont.
HAMES, steel and iron
*McKinnon Industries, Ltd., St. Catharines, Ont.
HANDLES (axe, pick, sledge hammers, etc.)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.
HANDLES, wood
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
*Toy products, Ltd., Farm Point, Que.
HAND SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HANGERS
Bond Engineering Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
HARDWARE
*Richards - Wilcox Canadian Co., Ltd., London, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.
The Jas. Smart Mfg. Co., Ltd., Brockville, Ont.
HARNESS
Lamontagne, Ltd., Montreal, Que.
HATS, men's straw
The Crown Hat Co., Ltd., Galt, Ont.
HARNESS HARDWARE
*McKinnon Industries, Ltd., St. Catharines, Ont.
HATS, ladies' and children's straw
The Crown Hat Co., Ltd., Galt, Ont.
HATS, ladies' and children's felt and beaver
The Crown Hat Co., Ltd., Galt, Ont.
HATS, ladies' felt and straw
Toronto Hat Mfg. Co., Toronto.
HAULAGE, wire rope
The Dominion Wire Rope Co., Ltd., Montreal, Que.
HEADING SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HEADLIGHT, electric
*Crouse-Hinds Co., Ltd., Toronto.
HEATERS
*Waterous Engine Works Co., Ltd., Brantford, Ont.
HEATERS, feed water
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
HEATING APPLIANCES
*C. A. Dunham Co., Ltd., Toronto.
*Sheldons, Ltd., Galt, Ont.
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
HEATING SYSTEMS
*C. A. Dunham Co., Ltd., Toronto.
HEMLOCK, union and oak sole
Breithaupt Leather Co., Ltd., Kitchener, Ont.
HESSIANS
The Canadian Bag Co., Ltd., Montreal, Que.
*Scythes & Co., Ltd., Toronto.
HINGES
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
HOISTS
*M. Beatty & Sons, Ltd., Welland, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
HOISTS, electric and pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*M. Beatty & Sons, Ltd., Welland, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
HOISTING MACHINERY
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*M. Beatty & Sons, Ltd., Welland, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
HOOKS, for logging chains
*McKinnon Industries, Ltd., St. Catharines, Ont.
HOSE, fire
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber, Ltd., Toronto, Ont.
HOSE, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
*Gutta Percha & Rubber, Ltd.
HUB CAPS
*McKinnon Industries, Ltd., St. Catharines, Ont.
HUBS, for Ford cars
*McKinnon Industries, Ltd., St. Catharines, Ont.
HYDRAULIC PRESSES
*Bawden Machine Co., Ltd., Toronto, Ont.
*William R. Perrin, Ltd., Toronto
HYDRO-ELECTRIC PLANTS
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
ICE CREEPERS
Parmenter & Bulloch Co., Ltd., Gananoque, Ont.
ICE-MAKING MACHINERY
The Linde Canadian Refrigeration Co., Ltd., Montreal, Que.
INCUBATORS AND BROODERS
Lee Mfg. Co., Ltd., Pembroke, Ont.
INGOT METALS
*Brown's Copper & Brass Rolling Mills, Ltd., New Toronto, Ont.
INSERTED TOOTH SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
INSULATING COMPOUNDS
The Imperial Varnish & Color Co., Ltd., Toronto.
INSULATING PAPERS
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
INSULATORS
*Crouse-Hinds Co., Ltd., Toronto.
INTERLOCKING RUBBER TILING
*Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd., Toronto, Ont.
INVERTS
Standard Clay Products, Ltd., St. Johns, Que.
IRON
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
IRON, refined bar
Starr Mfg. Co., Ltd., Dartmouth, N.S.
IRON AND STEEL BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
IRON STAIRWAYS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
IRONWORK, architectural
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
*Canada Wire & Iron Goods Co., Hamilton, Ont.
IRONWORK, ornamental
*Canada Wire & Iron Goods Co., Hamilton, Ont.
IRON, LEAD AND PUTTY
A. R. Whittall, Montreal, Que.
IRON PUMPS
*Medicine Hat Pump and Brass Mfg. Co., Medicine Hat, Alta.
JACKS
*Globe Engineering Co., Ltd., Hamilton, Ont.
JAM, canned goods, etc.
E. D. Smith & Son, Ltd.
JAPANS, enamels, etc.
A. Muirhead Co., Ltd., Toronto.
The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
JIGS AND TOOLS
*Brown Engineering Corporation, Toronto, Ont.
JOINTERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
JELLY POWDER
S. H. Ewing & Sons, Montreal.
JEWELRY, enamelled souvenir
Caron Bros., Montreal, Que.
JEWELRY, gold-filled
Caron Bros., Montreal, Que.
JOIST HANGERS
*Richards - Wilcox Canadian Co., Ltd., London, Ont.
JUNCTION BOXES, cable
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
KELSEY WARM AIR GENERATOR
The Jas. Smart Mfg. Co., Limited, Brockville, Ont.
KEROSENE ENGINES
London Gas Power Co., Limited, London, Ont.
KILNS
*Sheldons, Ltd., Galt, Ont.
KINDLING
Standard Fuel Co., Toronto, Ont.
KNIFE GRINDERS
*Canada Machinery Corporation Ltd., Galt, Ont.
*W. H. Banfield & Sons, Toronto.
KNITTED GOODS
*Penman's, Ltd., Paris, Ont.
KNIVES
*Galt Knife Co., Ltd.
*The Peter Hay Knife Co., Ltd., Galt, Ont.
Simonds Canada Saw Co., Ltd., Montreal, Que.
KNIVES, pulp and paper
Henry Disston & Sons, Toronto.
*The Peter Hay Knife Co., Ltd., Galt, Ont.
KODAKS AND PHOTOGRAPHIC SUPPLIES
Canadian Kodak Co., Ltd., Toronto.
LABELS
Lawson & Jones, Ltd., London, Ont.
LABELS, lithographed
Harris Lithographing Co., Ltd., Toronto, Ont.
LABORATORY SUPPLIES
Canadian Laboratory Supplies, Ltd., Toronto.
LACE LEATHER
F. C. McCordick, St. Catharines, Ont.
*Sadler & Haworth, Montreal, Que.
*The D. K. McLaren Belting Co., Ltd., Montreal, Que.
*The J. C. McLaren Belting Co., Ltd., Montreal, Que.
LADDERS
Stratford Mfg. Co., Ltd., Stratford,, Ont.
LADDERS, step
*Otterville Mfg. Co., Ltd., Otterville, Ont.
LADLES, foundry
*Northern Crane Works, Ltd., Walkerville, Ont.
LAMP GLOBES
*Crouse-Hinds Co., Ltd., Toronto.
LARD
F. W. Fearman Co., Ltd., Hamilton, Ont.
LATH
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
LATHE CHUCKS
Ker & Goodwin, Brantford, Ont.
LATHE-DOGS
Canadian Billings & Spencer, Ltd., Welland, Ont.
LATHES
*Canada Machinery Corporation, Ltd., Galt, Ont.
LAUNCHES
Peterboro Canoe Co., Ltd., Peterboro, Ont.
LAWN MOWERS
Taylor-Forbes Co., Ltd., Guelph, Ont.
LAWN SWINGS
Stratford Mfg. Co., Ltd., Stratford, Ont.
LAVATORIES, enameled
Amherst Foundry Co., Ltd., Amherst, N.S.
LAUNDRY SINKS
Amherst Foundry Co., Ltd., Amherst, N.S.
LEAD
*Consolidated Mining & Smelting Co. of Canada, Ltd., Toronto.
LEAD GRINDERS
Benjamin Moore & Co., Ltd., Toronto, Ont.
LEAD PIPE
*Hoyt Metal Co., Toronto, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
*The Canada Metal Co., Toronto.
LEAD SHEET
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
LEATHER
The Robson Leather Co., Ltd., Oshawa, Ont.
LEATHER, bookbinders'
Clarke & Clarke, Ltd., Toronto.
LEATHER DASHES & FENDERS
*McKinnon Industries, Ltd., St. Catharines, Ont.
LEATHER, fancy
Clarke & Clarke, Ltd., Toronto.
LEATHER GOODS
Lamontagne, Ltd., Montreal, Que.
LEATHER, hemlock, union and oak sole
The Breithaupt Leather Co., Ltd., Kitchener, Ont.
LEATHER, patent colt and side leather
*A. R. Clarke & Co., Ltd., Toronto.
LEATHER, sheep skin, etc.
Clarke & Clarke, Ltd., Toronto.
LEATHER, upholstering
Clarke & Clarke, Ltd., Toronto.
LEATHER, upper
A. Davis & Son., Ltd., Kingston, Ont.
King Brothers Co., Ltd., Whitby, Ont.
LIGHTS, marine, side and port
*Crouse-Hinds Co., Ltd., Toronto.
LINK BELT, Ewart, and sawmill riveted
*Canadian Link-Belt Co., Toronto.

* For Display Advertisement see Index, Page 41

LINK BELTING
*The Dodge Mfg. Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

LINOLEUM
Dominion Oil Cloth Co., Ltd., Montreal, Que.

LITHOGRAPHED BUSINESS STATIONERY
Business Systems, Ltd., Toronto.

LITHOGRAPHERS
American Bank Note Co., Ottawa, Ont.
Harris Lithographing Co., Ltd., Toronto, Ont.
The Mortimer Co., Ltd., Ottawa, Ont.

LOCKERS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*Geo. B. Meadows, Wire, Iron and Brass Works Co., Toronto. Ont.

LOCOMOTIVE BLOCKS
Standard Clay Products, Ltd., St. Johns, Que.

LOCOMOTIVES, industrial
*Montreal Locomotive Works, Ltd., Montreal, Que.

LOCOMOTIVE & MARINE BRASS WORKS
The James Morrison Brass Mfg. Co., Ltd., Toronto.

LOGGING CHAIN HOOKS
*McKinnon Industries, Ltd., St. Catharines, Ont.

LOOSE LEAF BINDERS AND FORMS
Business Systems, Ltd., Toronto.

LOOSE LEAF SYSTEMS
Copeland - Chatterson Co., Ltd., Brampton, Ont.
Lowe-Martin Co., Ottawa, Ont.

LOOSE LEAF SUPPLIES
The Esdale Press, Ltd., Edmonton, Alta.

LUBRICATORS, steam sight feed
Penberthy Injector Co., Ltd., Windsor, Ont.

LUGS, for silos and water tanks
*Ontario Wind Engine & Pump Co., Ltd., Toronto.
*Otterville Mfg. Co., Ltd., Otterville, Ont.
*McKinnon Industries, Ltd., St. Catharines, Ont.

LUMBER
*Brown Corporation, La Tuque, Que.
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
G. & J. Esplen, Montreal, Que.

LUMBER, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

LUMBER, spruce and pine, cedar railway ties and shingles
Bathurst Lumber Co., Ltd., Bathurst, N.B.

LUMBERING BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.

LUMBER, red pine and spruce
Gillies Bros., Ltd., Braeside, Ont.

LUMBER, spruce, fir, larch and cedar
Fernie Lumber Co., Ltd., Fernie, B.C.

LUMBER, White pine
Gillies Bros., Ltd., Braeside, Ont.

MACHINE KNIVES
*Galt Knife Co., Ltd.
*E. C. Atkins & Co., Inc., Hamilton, Ont.
Henry Disston & Sons, Toronto.

MACHINE TOOLS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.

MACHINE WORK, special and repairs
*Canadian Rumely Co., Ltd., Toronto, Ont.
*The John Whitfield Co., Toronto.

MACHINERY AND UTENSILS FOR BAKERS
Fletcher Mfg. Co., Ltd., Toronto.

MACHINERY AND UTENSILS FOR CANDY
Fletcher Mfg. Co., Ltd., Toronto.

MACHINERY AND UTENSILS FOR ICE CREAM
Fletcher Mfg. Co., Ltd., Toronto.

MACHINERY, conveying
*Canadian Link-Belt Co., Toronto.
*Canadian Mathews Gravity Carrier Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

MACHINERY, flour mill
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

MACHINERY, grinding
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
J. & R. Weir, Montreal, Que.
*M. Beatty & Sons, Ltd., Welland.
*Northern Crane Works, Ltd., Walkerville, Ont.

MACHINERY, ice cream
J. J. McLaughlin, Ltd., Toronto.

MACHINERY, iron working
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.

MACHINERY, pulp mill
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

MACHINERY, punching and shearing
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.

MACHINERY, railroad and car-shop
*Canada Machinery Corporation, Ltd., Galt, Ont.
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*John Bertram & Sons Co., Ltd., Dundas, Ont.

MACHINERY, roadmaking
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
Sawyer-Massey Co., Ltd., Hamilton, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

MACHINERY, sawmill
The E. Long Mfg. Co., Ltd., Orillia, Ont.
P. Payette & Co., Pentanguishene, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Yates, P. B., Machine Co., Ltd., Hamilton, Ont.

MACHINERY, sheet metal working
Brown, Boggs Co., Ltd., Hamilton, Ont.
*Canada Machinery Corporation, Ltd., Galt, Ont.

MACHINERY, special
Bawdon Machine Co., Ltd., Toronto.
*The John Whitfield Co., Toronto, Ont.

MACHINERY, transmission
Bond Engineering Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
*Goldie & McCulloch Co., Ltd., Galt, Ont.

MACHINERY, woodworking
*Canada Machinery Corporation, Ltd., Galt, Ont.
*Yates, P. B., Machine Co., Ltd., Hamilton, Ont.
Preston Woodworking Machinery Co., Ltd., Preston, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

MACHINE WRENCHES
*Canadian Billings & Spencer, Ltd., Welland, Ont.

MACHINES, painting
Spramotor Co., London, Ont.

MAGNESITE
Canadian Carbonate Co., Montreal, Que.

MALLEABLE, for carriages
*McKinnon Industries, Ltd., St. Catharines, Ont.

MALLEABLE IRON CASTINGS
*McKinnon Industries, Ltd., St. Catharines, Ont.
Galt Malleable Iron Co., Ltd., Galt, Ont.

MALT
*Hiram Walker & Sons, Ltd., Walkerville, Ont.

MAPLE PRODUCTS
*Maples, Ltd., Toronto, Ont.

MARTINGALE RINGS AND SLIDE LOOPS
The Arlington Co. of Canada, Ltd., Toronto, Ont.

MATCHERS
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

MATCHES
*The E. B. Eddy Co., Ltd., Hull, Que.

MECHANICAL STOKERS
*The Jones Underfeed Stoker Co., Ltd., Toronto.

MEDICINES, patented and pharmaceutical
Dr. Ed. Morin & Cie., Ltd., Quebec.

METAL, babbitt
*Canada Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
Alonzo W. Spooner, Ltd., Port Hope, Ont.

METAL CEILINGS
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

METAL LATH
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.

METAL PACKING
*Garlock Packing Co., Hamilton, Ont.

METAL, spinning and stamping
The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.

METAL SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

METAL SHINGLES
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

METAL STAMPINGS
Canadian Cartridge Co., Ltd., Hamilton, Ont.

METERS, water
Canadian Cartridge Co., Ltd., Hamilton, Ont.

MILK DEALERS' MACHINERY AND SUPPLIES
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.

MILLBOARD, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto.

MILLING CUTTERS
Pratt & Whitney Co. of Canada, Dundas, Ont.

MINING MACHINERY
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.

MITTS AND GLOVES, Indian, tan, red deerskins
Holt, Renfrew, Ltd., Quebec, Que.
A. R. Clarke & Co., Ltd., Toronto.

MIXERS, chocolate, dough and paint
Fletcher Mfg. Co., Ltd., Toronto.

MOCCASINS AND SLIPPERS, Indian tanned leathers
Holt, Renfrew, Ltd., Quebec, Que.

MORTISERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

MOTOR CARS
*Ford Co. of Canada, Ford, Ont.

MOTORS, electric
*Canadian General Electric Co., Ltd., Toronto, Ont.

MOTORS, electric (alternating current)
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Consolidated Electric Co., Ltd., Toronto, Ont.
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*T. & H. Electric Co., Hamilton, Ont.

MOTORS, electric (direct current)
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Consolidated Electric Co., Ltd., Toronto, Ont.
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*T. & H. Electric Co., Hamilton.

MOTORS, electric (repairing)
Consolidated Electric Co., Ltd., Toronto, Ont.
*T. & H. Electric Co., Hamilton.

MOTORS, pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

MOULDERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

NAILS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

NAILS, copper
Parmenter & Bullock Co., Ltd., Gananoque, Ont.

NAILS, wire
Parmenter & Bullock Co., Ltd., Gananoque, Ont.
The Graham Nail Works, Toronto.

NAPHTHA
*The Imperial Oil Co., Ltd., Toronto, Ont.

NECK YOKES
*McKinnon Industries, Ltd., St. Catharines, Ont.

NICKEL OXIDE
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
Coniagas Reduction Co., Ltd., St. Catharines, Ont.

NICKEL METAL
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.

NIPPLES, for radiators
*McKinnon Industries, Ltd., St. Catharines, Ont.

NUTS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*United Brass & Lead, Ltd., Toronto, Ont.

OAKUM, plumbers, Canadian Navy
Factory Waste & Metal Co., Montreal, Que.
*Scythes & Co., Ltd., Toronto, Ont.

OARLOCKS
*McKinnon Industries, Ltd., St. Catharines, Ont.

OAT CRUSHERS AND FLAKERS
J. Fleury's Sons, Aurora, Ont.

OFFICE DESKS
*Goderich Organ Co., Goderich, Ont.

OFFICE EQUIPMENT
Lowe-Martin Co., Ltd., Ottawa, Ont.
*Office Specialty Co., Newmarket, Ont.

OFFICE FURNITURE
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

OILS
Brandram-Henderson, Ltd., Montreal, Que.
A. Ramsay & Son Co., Montreal, Que.
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que.

OIL FILTRATION AND CIRCULATING SYSTEMS
S. F. Bowser & Co., Toronto, Ont

OIL STORAGE SYSTEMS, self-measuring
S. F. Bowser & Co., Toronto.

OIL COMPANIES
*Canadian Oil Cos., Toronto.
Commercial Oil Co., Ltd., Hamilton, Ont.
*Imperial Oil Co., Toronto.

OILS (petroleum products)
*British American Oil Co., Ltd., Toronto, Ont.
*Dominion Oil Co., Ltd., Hamilton, Ont.
*The Imperial Oil Co., Toronto.

OILS, road
*The Barrett Co., Ltd., Toronto and Montreal.

*For Display Advertisement see Index, Page 41

OIL HOLE COVERS
*Canadian Winkley Co., Ltd., Windsor, Ont.
OIL CUPS, both screw top and hinge lid
*Canadian Winkley Co., Ltd., Windsor, Ont.
OILCLOTHS, floor and table
Dominion Oil Cloth Co., Ltd., Montreal, Que.
ORGANS
Casavant Freres, Limitee, St. Hyacinthe, Que.
*Goderich Organ Co., Goderich, Ont.
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
ORGANS, pipe
Casavant Freres, Limitee, St. Hyacinthe, Que.
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
ORGANS, parlor
*Goderich Organ Co., Goderich, Ont.
ORNAMENTAL IRON WORK
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*The Geo. B. Meadows, Toronto Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
OVERALLS
Peerless Overall Co., Rock Island, Que.
Walker Pant & Shirt Co., Walkerville and Chatham, Ont.
The Standard Shirt Co., Ltd., Montreal, Que.
OVERCOATINGS
Rosamond Woollen Co., Almonte, Ont.
OVERHEAD RUNWAYS
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
OXY-ACETYLENE WELDING
*L'Air Liquide Society, Montreal, Que.
*The Prest-O-Lite Co., Inc., Toronto.
OXYGEN
*L'Air Liquide Society, Montreal, Que.
PACKING BOXES
Barchard & Co., Ltd., Toronto.
PACKING, engine
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Garlock Packing Co., Hamilton, Ont.
PACKING, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber Mfg. Co. of Toronto, Ltd.
Jenkins Bros., Ltd., Montreal, Que.
PAILS AND TUBS, wooden
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
PAINTERS' SUPPLIES
A. Muirhead Co., Ltd., Toronto.
PAINTS
R. C. Jamieson & Co., Ltd., Montreal, Que.
PAINTS AND VARNISHES
A. Muirhead Co., Ltd., Toronto.
Benjamin Moore & Co., Ltd., Toronto, Ont.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
The Staneland Co., Ltd., Victoria, B.C.
A. Ramsay & Sons Co., Montreal, Que.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
PAINTS, barn and bridge
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
PAINTS, preservative
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
*The Barrett Co., Ltd., Toronto and Montreal.

PANELBOARDS
*Crouse-Hinds Co., Ltd., Toronto.
PAPER, bags, all kinds
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
PAPER, book
Barber Paper & Coating Mills, Ltd., Georgetown, Ont.
PAPER BOXES
King Paper Box Co., Ltd., Montreal, Que.
*Rudd Paper Box Co., Ltd., Toronto, Ont.
PAPER, coated, book and label
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, coated box board
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, coated cover
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, envelope
*Provincial Paper Mills, Ltd., Georgetown, Ont.
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPER, enamelled blotting
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, label
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, ledger
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPERBOARDS
*Canada Boxboard Co., Ltd., Montreal, Que.
PAPER, super-book
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPER, wall
Stauntons, Ltd., Toronto.
PAPER, waxed
Business Systems, Ltd., Toronto.
PAPER, writing
The Toronto Paper Mfg. Co., Cornwall, Ont.
Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
PAPERS, bond
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
PAPERS, building
Bathurst Lumber Co., Ltd., Bathurst, N.B.
*The Riordon Pulp & Paper Co., Montreal, Que.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
PARCHMENT PAPER, for wet packing
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
PARK SEATS
Stratford Mfg. Co., Ltd., Stratford, Ont.
PARLOR SUNDRIES
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
PATENTS
Fetherstonhaugh & Co., Toronto.
Ridout & Maybee, Toronto, Ont.
*Harold C. Shipman & Co., Ottawa.
PATENT LITIGATION
Ridout & Maybee, Toronto, Ont.
*Harold C. Shipman & Co., Ottawa, Ont.
PATTERN MAKERS' BRASS DOWEL PINS
*Canadian Winkley Co., Ltd., Windsor, Ont.
PAY ROLL AUDITS
*International Business Machines, Ltd., Toronto, Ont.
PERFORATED METALS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
PERFORATED MUSIC ROLLS
The Otto Higel Co., Ltd., Toronto.
PERFUMES AND TOILET PREPARATIONS
Sovereign Perfumes, Ltd., Toronto.

PETROLEUM PRODUCTS
*The Imperial Oil Co., Ltd., Toronto, Ont.
PHOTO MAILERS
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.
PIANOS
Dominion Organ & Piano Co., Ltd., Bowmanville, Ont.
*Gourlay, Winter & Leeming, Toronto, Ont.
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
PIANO ACTIONS
The Otto Higel Co., Ltd., Toronto.
PIANO KEYS
The Otto Higel Co., Ltd., Toronto.
PIANOS, player
*Gourlay, Winter & Leeming, Toronto, Ont.
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
PIANO, player actions
The Otto Higel Co., Ltd., Toronto.
PIANO STOOLS AND BENCHES
*Goderich Organ Co., Goderich, Ont.
PIG IRON
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
M. A. Hanna & Co., Toronto.
PINS, society, emblems and badges
Caron Bros., Montreal, Que.
PIPE, cast iron, for water and gas
National Iron Works, Ltd., Toronto, Ont.
PIPE COUPLINGS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
PIPE COVERINGS
*Eureka Mineral Wood & Asbestos Co., Toronto, Ont.
PIPE ORGANS
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
PIPES, culvert
Standard Clay Products, Ltd., St. John's, Que.
*The Pedlar People, Ltd., Oshawa, Ont.
PIPE AND NIPPLES, black and galvanized
*Canadian Tube & Iron Co., Ltd., Montreal, Que.
PIPE, sewer
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.
Standard Clay Products, Ltd., St. John's, Que.
PIPE, soil and fittings
Anthes Foundry, Ltd., Toronto and Winnipeg.
Warden King Ltd., Montreal, Que.
PIPE AND TUBES, wrought
*Page-Hersey Iron Tube & Lead Co., Ltd., Toronto, Ont.
PISTON RODS
*The Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*Union Drawn Steel Co., Ltd., Hamilton, Ont.
PLANERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
PLANING MILLS
G. & J. Esplen, Montreal, Que.
PLASTERING TROWELS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
PLOWS
J. Fleury's Sons, Aurora, Ont.
PLUGS
*Crouse-Hinds Co., Ltd., Toronto.
PLUMBAGO, CRUCIBLES AND STOPPER HEADS
Dominion Crucible Co., Ltd., Montreal, Que.
PLUMBERS' SUPPLIES
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
PLUMBING APPLIANCES
Standard Sanitary Mfg. Co., Ltd., Toronto, Ont.
PLUMBING SUPPLIES
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
PNEUMATIC DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
PNEUMATIC MACHINERY
*Canadian Ingersoll-Rand Co., Sherbrooke, P.Q.

POLE LINE MATERIAL (wooden insulator top pins, side blocks, pole steps, cross arms)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.
POLES, flag
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
POLES, telegraph and telephone, cedar
Fernie Lumber Co., Ltd., Fernie, B.C.
PORK PACKERS AND CHEESE EXPORTERS
The Ingersoll Packing Co., Ltd., Ingersoll, Ont.
POSTS, split cedar fence
Fernie Lumber Co., Ltd., Fernie, B.C.
POULTRY SUPPLIES AND MEDICINES
Lee Mfg. Co., Ltd., Pembroke, Ont.
POWDER, blasting
Canadian Explosives, Ltd., Montreal, Que.
POWER PRESSES
Hydraulic Machinery Co., Ltd., Montreal, Que.
*William R. Perrin, Ltd., Toronto.
PRESERVATIVE PAINT
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
PRESSED BRICK
*Interprovincial Brick Co. of Canada, Limited, Toronto.
PRESSES, baling and filter
*William R. Perrin, Ltd., Toronto.
PRESSES, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.
PRESSES, sheet metal stamping
Brown, Boggs Co., Ltd., Hamilton, Ont.
*Canada Machinery Corporation, Ltd., Galt, Ont.
PRESSES, veneer
*Canada Machinery Corporation, Ltd., Galt, Ont.
PRESSED STEEL AND BRASS GREASE CUPS
*William R. Perrin, Ltd., Toronto.
PRINTERS
Rous & Mann, Ltd., Toronto, Ont.
The Mortimer Co., Ltd., Ottawa, Ont.
PRINTING AND LITHOGRAPHING
Lawson & Jones, Ltd., London, Ont.
PULLEYS
Bond Engineering Co., Toronto.
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
PULLEYS, wood split
*Bernard Industrial Co., Fortierville, P.Q.
PULP, bleached sulphite
The Edward Partington Pulp & Paper Co., St. John, N.B.
Riordan Sales Co., Ltd., Montreal, Que.
PULP, unbleached sulphite
Riordan Sales Co., Ltd., Montreal,
PULP, sulphate and sulphite
Bathurst Lumber Co., Ltd., Bathurst, N.B.
PULP
*Brown Corporation, La Tuque, Que.
PULP AND PAPER MILL MACHINERY
*The Hydraulic Machinery Co., Limited, Montreal.
PUMPS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
*Bawden Machine Co., Ltd., Toronto, Ont.
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*E. Leonard & Sons, Ltd., London, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
Spramotor Co., London, Ont.
*The Electric Steel & Metals Co., Ltd., Welland, Ont.
PUMPS, boiler feed
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Bawden Machine Co., Ltd., Toronto, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

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PUMPS, centrifugal
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*M. Beatty & Sons, Ltd., Welland, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Dominion Forge & Stamping Co., Ltd., Walkerville, Ont.
*Wentworth Mfg. Co., Hamilton.

PUMPS, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.

PUMPS, turbine and reciprocating
*Bawden Machine Co., Ltd., Toronto, Ont.
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

PUNCHES
*John Whitfield Co.,Toronto, Ont.
*Pratt & Whitney Co., Dundas,Ont.

PYROMETERS
*Canadian Hoskins Co., Walkerville, Ont.

RADIATORS
Taylor-Forbes Co., Ltd., Guelph, Ont.
Warden King, Ltd., Montreal, Que.

RAILINGS, brass and iron
*Dennis Wire & Iron Works Co., London, Ont.

RAILS, light
Hammant Steel Car & Engineering Works, Hamilton, Ont.

RAILWAY SIGNAL APPLIANCES
General Railway Signal Co. of Canada, Ltd., Montreal, Que.

RAILWAY SUPPLIES
*Canadian Steel Foundries, Ltd., Montreal, Que.
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
B. J. Coghlin Co., Ltd., Montreal, Que.

RAILWAY TARIFF BINDERS
The Esdale Press, Ltd., Edmonton, Alta.

READY-TO-WEAR GARMENTS, ladies'
H. C. Boulter Co., Ltd., Toronto.

REAMERS
*Pratt & Whitney Co., Dundas, Ont.
*Butterfield & Co., Rock Island, P.Q.

RECEPTACLES
*Crouse-Hinds Co., Ltd., Toronto.

REED AND RATTAN GOODS
Canada Furniture Mfgs., Ltd., Woodstock, Ont.

REFRIGERATORS
Sanderson-Harold Co., Ltd., Paris, Ont.
Lee Mfg. Co., Ltd., Pembroke, Ont.

REFRIGERATING MACHINERY
The Linde Canadian Refrigeration Co., Ltd., Montreal, Que.

REFRIGERATORS, store, homes and institutions
Ham & Nott Co., Ltd., Brantford, Ont.
John Hillock & Co., Ltd., Toronto.

REINFORCEMENT BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*Trussed Concrete Steel Co., Ltd., Walkerville, Ont.

REINFORCEMENT FOR CONCRETE
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.

REINFORCEMENT FOR CONCRETE ROOFING, metal
*The Pedlar People, Ltd., Oshawa, Ont.
*Trussed Concrete Steel Co., Ltd., Walkerville, Ont.

REVOLVING DOORS
*A. B. Ormsby Co., Ltd., Toronto.

RINGS, gold
Caron Bros., Montreal, Que.

RIVETERS, pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

RIVETS
*Canadian Tube & Iron Co., Ltd., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*Stowell Screw Co., Ltd., Montreal.

RIVETS, bifurcated and tubular
Parmenter & Bullock Co., Ltd., Gananoque, Ont.

RIVETS AND BURRS, iron, copper and brass
Parmenter & Bullock Co., Ltd., Gananoque, Ont.

ROCK DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

ROLLING STEEL DOORS
*A. B. Ormsby Co., Ltd., Toronto.

ROLL PRINTING
*Autographic Register Co., Ltd., Montreal, Que.
Business Systems, Ltd., Toronto.

ROOFING, metal
*A. B. Ormsby Co., Ltd., Toronto.

ROOFINGS, plastic, liquid, rubber
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.

ROOFING, ready to lay
Pacific Roofing Co., Vancouver, B.C.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
*The Barrett Co., Ltd., Toronto and Montreal.

ROOF TRUSSES
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
*Dominion Bridge Co., Ltd., Montreal, Que.

ROPE
*Doon Twines, Ltd., Doon, Ont.
*Shurly & Derrett, Ltd., Toronto.

ROPE, cotton
Hamilton Cotton Co., Hamilton, Ont.

RUBBER FOOTWEAR
Ames Holden, McCready, Ltd., Montreal, Que.
*Gutta Percha & Rubber Ltd., Toronto, Ont.
The Miner Rubber Co., Ltd., Grandy, Que.

RUBBER GOODS
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber Limited, Toronto.

RUBBER MACHINERY
*The Hydraulic Machinery Co., Limited, Montreal.

RUBBER MOULDS
Bawden Machine Co., Ltd., Toronto, Ont.

RUBBER PACKING
*Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Garlock Packing Co., Hamilton, Ont.

RULES
The Lufkin Rule Co. of Canada, Ltd., Windsor, Ont.

SADDLERY HARDWARE
*Dominion Forge & Stamping Co., Walkerville, Ont.
*McMinnon Industries, Ltd., St. Catharines, Ont.

SAFES
*Goldie & McCulloch Co., Ltd., Galt, Ont.
J. & J. Taylor, Ltd., Toronto.

SAMPLE CASES
The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.
J. Eveleigh & Co., Ltd., Montreal, Que.

SAND RAMMERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

SANDPAPER
*Delaney & Pettit, Ltd., Toronto.

SASH CORD, cotton
Hamilton Cotton Co., Hamilton, Ont.

SALT
Canadian Salt Co., Ltd., Windsor, Ont.
Dominion Salt Co., Ltd., Sarnia, Ont.

SANITARY PAPER TOWELS
*E. B. Eddy Co., Ltd., Hull, Que.

SAVE-ALLS
*The Hydraulic Machinery Co., Limited, Montreal.

SAW SHARPENING MACHINERY
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

SAWS
*E. C. Atkins & Co., Ltd., Hamilton, Ont.
Henry Disston & Sons, Ltd., Toronto, Ont.
Shurly & Deitrich, Galt, Ont.

SAWS, cross-cut and band
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
Shurly & Deitrich, Galt, Ont.

SAWS, circular mill
Shurly & Deitrich, Galt, Ont.

SAWS, hack
*Victor Saw Works, Ltd., Hamilton, Ont.

SAWS, of all kinds
Simonds Canada Saw Co., Ltd., Montreal, Que.

SAWS, rip
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
Shurly & Deitrich, Galt, Ont.

SAWMILLS
G. & J. Esplen, Montreal, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

SAW MILL MACHINERY
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.

SAWS, specialties
*Victor Saw Works, Ltd., Hamilton, Ont.

SCALES
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
The Gurney Scale Co., Hamilton, Ont.

SCALES, counter
The Gurney Scale Co., Hamilton, Ont.

SCALES, railway track, etc.
The Gurney Scale Co., Hamilton, Ont.

SCREENS
*Canada Wire & Iron Goods Co., Hamilton, Ont.

SCREEN DOORS AND WINDOWS
Sanderson-Harold Co., Ltd., Paris, Ont.
Ham & Nott Co., Ltd., Brantford, Ont.

SCREWS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*Stowell Screw Co., Ltd., Montreal, Que.

SCREW PLATES
*Butterfield & Co., Rock Island, P.Q.

SECURITIES, engraved
American Bank Note Co., Ottawa, Ont.

SERGES
Rosamond Woollen Co., Almonte, Ont.

SEWAGE SCREENS
*The Hydraulic Machinery Co., Limited, Montreal.

SHAFTING
Canada Forge Co., Ltd., Welland, Ont.
Bond Engineering Co., Toronto.
*Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*Union Drawn Steel Co., Ltd., Hamilton, Ont.
*Dodge Mfg. Co., Ltd., Toronto.

SHANTY BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.

SHAPERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

SHEAR BLADES, iron
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.

SHEATHING
*The Barrett Co., Ltd., Toronto and Montreal.

SHEATHING, asbestos corrugated
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

SHEET METAL STAMPINGS
Acme Stamping & Tool Works, Ltd., Hamilton, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.
*W. H. Banfield & Sons, Ltd., Toronto, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

SHEETS, Etc.
*Tallhan Brass & Metal Co., Hamilton, Ont.

SHEETS, galvanized
*Dominion Sheet Metal Co., Ltd., Hamilton, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.

SHINGLES
Bathurst Lumber Co., Ltd., Bathurst, N.B.

SHINGLE SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

SHIP BUILDERS
J. & R. Weir, Montreal, Que.

SHIRTS
John W. Peck & Co., Ltd., Montreal, Que.

SHIRTS, workmen's
*A. R. Clarke & Co., Ltd., Toronto.

SHOE PEGWOOD
O. Chalifour, Quebec, Que.

SHOE LININGS
Galt Knitting Co., Ltd., Galt, Ont.

SHOES, running and athletic
Ames - Holden - McCready, Ltd., Montreal, Que.

SHOOKS
Barchard & Co., Ltd., Montreal.

SIGNAL CELLS
Canadian National Carbon Co., Ltd., Toronto.

SILENT CHAIN DRIVES
*Canadian Link-Belt Co., Toronto.

SILVER BULLION
Coniagas Reduction Co., Ltd., St. Catharines, Ont.
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.

SILVERSMITH
Canadian Wm. A. Rogers, Ltd., Toronto, Ont.
Standard Silver Co., Toronto, Ont.

SILVERWARE, sterling
Roden Bros., Ltd., Toronto, Ont.

SINGLETREES
*McKinnon Industries, Ltd., St. Catharines, Ont.

SINKS, enamelled
Amherst Foundry Co., Ltd., Amherst, N.S.

SKATES, figure
Canada Cycle & Motor Co., Ltd., Toronto, Ont.

SKATES, genuine Acme
Canada Cycle & Motor Co., Ltd., Toronto, Ont.

SKATES, hockey
Canada Cycle & Motor Co., Ltd., Toronto, Ont.

SKATES, ice
Canada Cycle & Motor Co., Ltd., Toronto, Ont.

SKIFFS
Peterboro Canoe Co., Ltd., Peterboro, Ont.

SKYLIGHTS
*A. B. Ormsby Co., Ltd., Toronto.
*The Pedlar People, Ltd., Oshawa, Ont.

SLEIGHS
Tudhope-Anderson Co., Ltd., Orillia, Ont.

SLIPPERS
Ames - Holden - McCready, Ltd., Montreal, Que.

SLOTTERS
*Canada Machinery Corporation, Ltd., Galt, Ont.

SMALL METAL STAMPINGS, in quantities
*Canadian Winkley Co., Ltd., Windsor, Ont.

SMOKE CONSUMERS
*The Jones Underfeed Stoker Co., Ltd., Toronto, Ont.

SMOKE-STACKS
*E. Leonard & Sons, Limited, London, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.

SNAPS, for harness
*McKinnon Industries, Ltd., St. Catharines, Ont.

SOAPS
J. Barsalou & Co., Ltd., Montreal.

SOAP (soft, oil)
The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
Sherwin-Williams Co. of Canada Ltd., Montreal, Que.

SOCKETS
*Crouse-Hinds Co., Ltd., Toronto.

SODA WATER FOUNTAINS
J. J. McLaughlin, Ltd., Toronto.

SODA WATER FOUNTAINS AND ACCESSORIES
Fletcher Mfg. Co., Ltd., Toronto

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SOIL PIPE
Anthes Foundry, Ltd., Toronto.
SOLDER
Alonzo W. Spooner, Ltd., Port Hope, Ont.
*Canada Metal Co., Toronto, Ont.
*Hoyt Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
SOLDER, silver
Geo. H. Lees & Co., Hamilton, Ont.
SOLDER, wire and bar
*American Can Co., Montreal, and Hamilton.
SOLDERING IRONS AND COPPERS
Brown, Boggs Co., Ltd., Hamilton.
SNOWSHOES
Holt, Renfrew, Ltd., Quebec, Que.
SPECIAL MACHINERY
*Globe Engineering Co., Ltd., Hamilton, Ont.
SPELTER
*Consolidated Mining & Smelting Co. of Canada, Ltd., Toronto.
SPIKES, railway and marine
Starr Mfg. Co., Ltd., Dartmouth, N.S.
SPINNING AND STAMPING
Tallman Brass & Metal, Ltd., Hamilton, Ont.
SPIRAL CONVEYORS
*Canadian Mathews Gravity Carrier Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
SPLIT PEAS
H. Murton, Ltd., Guelph, Ont.
SPIRITS
*Hiram Walker & Sons, Ltd., Walkerville, Ont.
SPOOLS
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
SPORTING MEDALS AND TROPHIES
Roden Bros., Ltd., Toronto, Ont.
SPRAYERS
Spramotor Co., London, Ont.
SPRING COTTERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
SPRINGS
*Canadian Steel Foundries, Ltd., Montreal, Que.
B. J. Coghlin Co., Ltd., Montreal.
Guelph Spring & Axle Co., Ltd., Guelph, Ont.
SPRINGS, carriage and automobile
Guelph Spring & Axle Co., Ltd.,
SPRING SHACKLE BOLTS
*Canadian Winkley Co., Ltd., Windsor, Ont.
John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
SPRINKLER SYSTEMS
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
*Purdy, Mansell, Ltd., Toronto.
*Vogel Co. of Canada, Ltd., Montreal, Que.
SPROCKET WHEELS
*Canadian Link Belt Co., Ltd., Toronto, Ont.
STAINS
R. C. Jamieson & Co., Ltd., Montreal, Que.
STAINS, creosote shingle
A. Muirhead Co., Ltd., Toronto.
STAMPINGS
STAMPINGS, heavy steel
Canadian Cartridge Co., Ltd., Hamilton, Ont.
STAMPS, steel, brass and rubber
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
STAMP MILLS
*Jenckes Machine Co., Sherbrooke, P.Q.
STATIONERY, office
Harris Lithographing Co., Toronto.
STEAM PIPE AND BOILER COVERINGS, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto.
STEAM SHOVELS
*M. Beatty & Sons, Ltd., Welland, Ont.
STEAM SPECIALTIES
*C. A. Dunham Co., Ltd., Toronto.
*Darling Bros., Ltd., Montreal, Que.
*Sheldons, Ltd., Galt, Ont.
STEAM TRAPS
*C. A. Dunham Co., Ltd., Toronto.
*Canadian Morehead Mfg. Co., Ltd., Woodstock, Ont.

STEEL
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
*Burlington Steel Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
STEEL BILLETS AND BLOOMS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STEEL BUILDINGS
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
*Dominion Bridge Co., Ltd., Montreal, Que.
*Maritime Bridge Co., Ltd., New Glasgow, N.S.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, P.Q.
*The Pedlar People, Ltd., Oshawa, Ont.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
STEEL CABINETS
J. & J. Taylor, Ltd., Toronto, Ont.
STEEL CASTINGS
Beauchemin & Fils, Ltd., Sorel, Que.
*Canadian Steel Foundries, Ltd., Montreal, Que.
*Dominion Steel Foundry Co., Ltd., Hamilton, Ont.
*Electric Steel & Metals Co., Ltd., Welland, Ont.
STEEL DOORS, rolling
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
STEEL FILING EQUIPMENT
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
STEEL PLATE WORK
*MacKinnon Steel Co., Limited, Sherbrooke, P.Q.
*Toronto Iron Works, Ltd., Toronto.
STEEL RODS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STEEL SASH
*Dennis Wire & Iron Works Co., London, Ont.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
STEEL SHELVING
*Dennis Wire & Iron Works Co., London, Ont.
STEEL WIRE RODS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STEEL WAGON HARDWARE
*McKinnon Industries, Ltd., St. Catharines, Ont.
STELLITE
*Deloro Smelting & Refining Co., Ltd., Deloro and Toronto.
STENCILS, brass
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
STEPS, for buggies and carriages
*McKinnon Industries, Ltd., St. Catharines, Ont.
STEREO TISSUE AND BLOTTINGS
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
STEREOTYPING
Central Press Agency, Toronto.
STOKERS
*The Jones Underfeed Stoker Co., Ltd., Toronto, Ont.
STOOLS AND BENCHES, piano and organ
*Otterville Mfg. Co., Ltd., Otterville, Ont.
STOOLS, steel factory
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
STONE
The Hagersville Contracting Co., Hagersville, Ont.
STONEWARE
*Jas. W. Foley & Co., St. John, N.B.
STORAGE BATTERIES
*Canadian General Electric Co., Ltd., Toronto, Ont.
STORE FITTINGS
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.
STOVES
Smith Foundry Co., Ltd., Fredericton, N.B.
Tudhope - Anderson Co., Ltd., Orillia, Ont.

STOVE LININGS
Standard Clay Products, Ltd., St. John's Que.
STOVES AND RANGES
Lee Mfg. Co., Ltd., Pembroke, Ont.
The Jas. Smart Mfg. Co., Ltd., Brockville, Ont.
McClary Mfg. Co., London, Ont.
STRAWS, paper drinking
Fletcher Mfg. Co., Ltd., Toronto.
STRAWBOARD
*Canada Boxboard Co., Ltd., Montreal, Que.
STREET LIGHTING FIXTURES
*Crouse-Hinds Co., Ltd., Toronto.
STRETCHERS, lace curtain
*Otterville Mfg. Co., Ltd., Otterville, Ont.
STRUCTURAL STEEL
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
*Dominion Bridge Co., Montreal.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*Manitoba Bridge & Iron Works, Ltd., Winnipeg, Man.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
STUMP EXTRACTORS
*The John Whitfield Co., Toronto.
SUIT CASES
J. Eveleigh & Co., Ltd., Montreal.
The M. Langmuir Mfg. Co. of Toronto, Ltd., Toronto, Ont.
SULPHUR BURNERS
*The Hydraulic Machinery Co., Limited. Montreal.
SUPPLY DEALERS
*The Foundation Co., Ltd., Montreal, Que.
SURFACERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
SWITCHBOARDS
*Canadian General Electric Co., Ltd., Toronto, Ont.
*Crouse-Hinds Co., Ltd., Toronto.
SWITCHES
*Crouse-Hinds Co., Ltd., Toronto.
SWITCHES, railway
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
SWITCHES AND FROGS
*Canadian Steel Foundries, Ltd., Montreal, Que.
SWITCH STANDS
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
TABLE COVERS, chenille
Hamilton Cotton Co., Hamilton, Ont.
TANKS
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*Toronto Iron Works, Ltd., Toronto.
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
Goold - Shapley - Muir Co., Ltd., Brantford, Ont.
*E. Leonard & Sons, Ltd., London, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Maritime Bridge Co., Ltd., New Glasgow, N.S.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
TANKS, steel storage
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
TANNERS' SUPPLIES
McClary Mfg. Co., London, Ont.
TAPS
*Butterfield & Co., Rock Island, P.Q.
*Pratt & Whitney Co., Dundas, Ont.
TAPES, measuring
The Lufkin Rule Co. of Canada, Ltd., Windsor, Ont.
TELEPHONE ACCESSORIES
*Canadian Independent Telephone Co., Toronto, Ont.
*Northern Electric Co., Ltd., Montreal, Que.
TENTS
Turner, J. J., & Sons, Peterboro, Ont.
*Scythes & Co., Ltd., Toronto, Ont.

TERMINALS, electric cable
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
TERRA ALBA
*Albert Mfg. Co., Hillsborough, N.B.
TERRA COTTA, architectural
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
TEXTILE SUPPLIES (shuttles, bobbins, spools and picker sticks)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.
THUMB SCREWS
*Canadian Billings & Spencer, Ltd., Welland Ont.
TIE TAMPERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
TIE PLATES, for railways
*McKinnon Industries, Ltd., St. Catharines, Ont.
TILING, rubber
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber Ltd., Toronto, Ont.
TIME RECORDERS
*International Business Machines Co., Ltd., Toronto, Ont.
TINWARE, lithographed
*MacDonald Mfg. Co., Ltd., Toronto, Ont.
TIRES, bicycle, auto, carriage, truck, motorcycle.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber Ltd., Toronto, Ont.
TOILET PAPER, towels, tissues
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
TOOLS
*The John Whitfield Co., Toronto,
TOOLS, pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
TOOLS, track
B. J. Coghlin Co., Ltd., Hamilton.
TOOLS, sheet metal workers'
Brown, Boggs Co., Ltd., Hamilton.
TRACK, steel, portable
Hammant Steel Car & Engineering Works, Hamilton, Ont.
TRADE MARKS AND DESIGNS
Ridout & Maybee, Toronto, Ont.
TRANSFORMERS
*Canadian General Electric Co., Ltd., Toronto, Ont.
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
TRANSLATIONS INTO FRENCH
Raoul Renault, Quebec City.
TRANSMISSION MACHINERY
Bond Engineering Co., Toronto.
*Canadian Link Belt Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
TRAPS
*C. A. Dunham Co., Ltd., Toronto.
*Canadian Morehead Mfg. Co., Woodstock, Ont.
TROLLEYS
*Richard-Wilcox Canadian Co., Ltd., London, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
TRUCKS
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
The Gurney Scale Co., Hamilton.
*Northern Crane Works, Ltd., Walkerville, Ont.
TRUCKS, brick, tile and lumber
*Waterous Engine Works Co., Ltd., Brantford, Ont.
TRUCKS, motor
*National Steel Car Co., Ltd., Hamilton, Ont.
TRUCKS, warehouse and factory
The W. S. Mahaffy Co., Toronto.
TRUCKS, steel, forge and foundry
Hammant Steel Car & Engineering Works, Hamilton, Ont.
TRUCKS FOR OFFICE AND VAULT USE
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
TRUNKS
Lamontagne, Ltd., Montreal, Que.
J. Eveleigh & Co., Ltd., Montreal.
The M. Langmuir Mfg. Co. of Toronto, Ltd., Toronto.

*For Display Advertisement see Index, Page 41

TUBING, brass and copper
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
Canadian Seamless Wire Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Co., Ltd., Montreal, Que.

TUBING, gold and silver
Canadian Seamless Wire Co., Toronto, Ont.

TUBES, ice cream
Fletcher Mfg. Co., Ltd., Toronto.

TUMBLERS, foundry
*Northern Crane Works, Ltd., Walkerville, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

TURBINES, steam
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines.

TURBINE PUMPS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

TURPENTINE
*Brown Corporation, La Tuque, Que.

TWEEDS
Rosamond Woollen Co., Almonte, Ont.

TWINES
*Doon Twines, Ltd., Doon, Ont.
*Shurly & Derrett, Ltd., Toronto.

TWINES, binder
Brantford Cordage Co., Ltd., Brantford, Ont.

TWINES, cotton
Hamilton Cotton Co., Hamilton, Ont.

TWIST DRILLS
*John Morrow Screw & Nut Co., Ltd., Ingersoll.
*Pratt & Whitney Co. of Canada, Dundas, Ont.
*The Wilt Twist Drill Co., Ltd., Walkerville, Ont.

UNDERWEAR
Galt Knitting Co., Ltd., Galt, Ont.

UNDERWEAR, imperial
Kingston Hosiery Co., Ltd., Kingston, Ont.

UNIONS
*Dart Union Co., Ltd., Toronto.
*Otterville Mfg. Co., Ltd., Otterville, Ont.

UPHOLSTERED FURNITURE, leather and tapestries
Imperial Rattan Co., Ltd.

VALVES
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Jenkins Bros., Ltd., Montreal, Que.
*Kerr Engine Co., Ltd., Walkerville, Ont.
T. McAvity & Sons, Ltd., St. John, N.B.
*Penberthy Injector Co., Ltd., Windsor, Ont.

VALVES, for steam and water
*Jenkins Bros., Ltd., Montreal.
*Mueller Mfg. Co., Ltd., Sarnia, Ont.
*Penberthy Injector Co., Ltd., Windsor, Ont.
James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.

VALVES, pressure reducing
*Mueller Mfg. Co., Ltd., Sarnia, Ont.

VALVES, regrinding globe, angle, cross checks, swing checks
*Mueller Mfg. Co., Ltd., Sarnia,
Penberthy Injector Co., Ltd., Windsor, Ont.

VALVES, regulating
*Mueller Mfg. Co., Ltd., Sarnia, Ont.

VALVES, rubber
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.

VARNISHES
*Ault & Wiborg Co. of Canada, Ltd., Toronto, Ont.
Berry Bros., Walkerville, Ont.
R. C. Jamieson & Co., Ltd., Montreal, Que.

VAULT FITTINGS, steel
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

VAULTS AND VAULT DOORS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
J. & J. Taylor, Ltd., Toronto, Ont.

VENTILATING APPLIANCES
*Sheldons, Ltd., Galt, Ont.

VENTILATING SYSTEMS
Gurney Foundry Co., Ltd., Toronto, Ont.

VENTILATORS
*A. B. Ormsby, Ltd., Toronto, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.

VOLTMETERS AND AMMETERS
*Crouse-Hinds Co., Ltd., Toronto.

WAGONS
Tudhope Anderson Co., Ltd., Orillia, Ont.

WAGON HARDWARE
*McKinnon Industries, Ltd., St. Catharines, Ont.

WALL COPING
Standard Clay Products, Ltd., St. John's, Que.

WASHERS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*United Brass & Lead, Ltd., Toronto, Ont.

WASHERS, plate or wrought
London Rolling Mill Co., Ltd., London, Ont.

WASTES, wool and cotton
Factory Waste & Metal Co., Montreal, Que.
*Scythes & Co., Ltd., Toronto, Ont.

WATERPROOF, cement coating
Benjamin Moore & Co., Ltd., Toronto, Ont.
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.
*The Barrett Co., Ltd., Toronto and Montreal.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.

WATERPROOF, caselining
*Beveridge Paper Co., Ltd., Montreal and St. John, N.B., Supply Department.

WATER WHEELS
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.

WEBBING, elastic
Hamilton Cotton Co., Hamilton, Ont.

WEBBING, non-elastic
Hamilton Cotton Co., Hamilton, Ont.

WELDING APPARATUS AND MATERIALS
*The Presto-O-Lite Co., Toronto.

WELL-DIGGING TOOLS AND MACHINERY
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.

WHEEL FLANGES
*McKinnon Industries, Ltd., St. Catharines, Ont.

WHEELS
*Canadian Car & Foundry Co., Ltd., Montreal, Que.

WHEELS, corundum
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

WHEELS, emery
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

WELL DRILLING TOOLS AND MACHINERY
Oil Well Supply Co., Ltd., Petrolia, Ont.

WHIPS AND LASHES
Lay Whip Co., Rock Island, Que.

WHIPSOCKETS
*McKinnon Industries, Ltd., St. Catharines, Ont.

WHITE ARSENIC
Coniagas Reduction Co., Ltd., St. Catharines, Ont.

WHITE LEAD
Brandram-Henderson, Ltd., Montreal, Que.
A. Ramsay & Son Co., Montreal.

WINDMILLS
*Goold - Shapley - Muir Co., Ltd., Brantford, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*Medicine Hat Pump & Brass Mfg. Co., Medicine Hat, Alta.

WINDOW SHADES
Daly & Morin, Montreal, Que.

WIRE
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*Laidlaw Bale Tie Co., Ltd., Hamilton, Ont.
*Eugene F. Phillips, Electrical Works, Ltd., Montreal, Que.
The Graham Nail Works, Toronto.

WIRE BALE TIES
*Laidlaw Bale Tie Co., Ltd., Hamilton, Ont.

WIRE CLOTH
*Canada Wire & Iron Goods Co., Hamilton, Ont.
C. H. Johnston & Sons, Ltd., Montreal, Que.

WIRE, feeder and trolley
*Eugene F. Phillips, Electrical Works, Ltd., Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

WIRE GUARDS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
C. H. Johnston & Sons, Ltd., Montreal, Que.

WIRE, insulated electric
*Northern Electric Co., Ltd., Montreal, Que.
*Eugene F. Phillips Electrical Works, Ltd., Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

WIRE, weatherproof
*Northern Electric Co., Ltd., Montreal, Que.
*Eugene F. Phillips Electrical Works, Ltd., Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

WIRE ROPE
*Dominion Wire Rope Co., Ltd., Montreal, Que.
*The B. Greening Wire Co., Ltd., Hamilton, Ont.

WIRE WORK
C. H. Johnson & Sons, Ltd., Montreal, Que.
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*The Geo. B. Meadows, Toronto Iron & Brass Goods Works Co., Ltd., Toronto, Ont.

WIRING DEVICES
*Crouse-Hinds Co., Ltd., Toronto.

WOOD
Standard Fuel Co., Toronto, Ont.

WOOD BORERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

WOOD PRINTERS
Barchard & Co., Ltd., Toronto.

WOOD PULP, mechanical
La Cie de Pulpe de Chicoutimi, Chicoutimi, Que.

WOODBOARD
*Canada Boxboard Co., Ltd., Montreal, Que.

WOOD SHOP, general work
*Canadian Rumely Co., Ltd., Toronto, Ont.

WOOD SPLIT PULLEYS
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

WOOD STAVE PIPE
T. A. Morrison & Co., Montreal.

WOOL
*H. V. Andrews, Toronto, Ont.

WOOD TURNING
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.

WORSTED COATINGS AND SUITINGS
Rosamond Woollen Co., Almonte, Ont.

WRAPPERS, book, bottle, etc.
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.

WRENCHES
*McKinnon Industries, Ltd., St. Catharines, Ont.

WROUGHT IRON PIPE
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

WROUGHT PIPE
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

YARNS, cotton
Hamilton Cotton Co., Hamilton, Ont.

ZINC, electrical
*The Canada Metal Co., Toronto.

* For Display Advertisement see Index, Page 41

BABBITT
HOYT METAL COMPANY
MONTREAL TORONTO WINNIPEG

JANUARY Vol. XIX No. 9 1920

Industrial Canada

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OIL WELL SUPPLY CO.
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MANUFACTURERS OF

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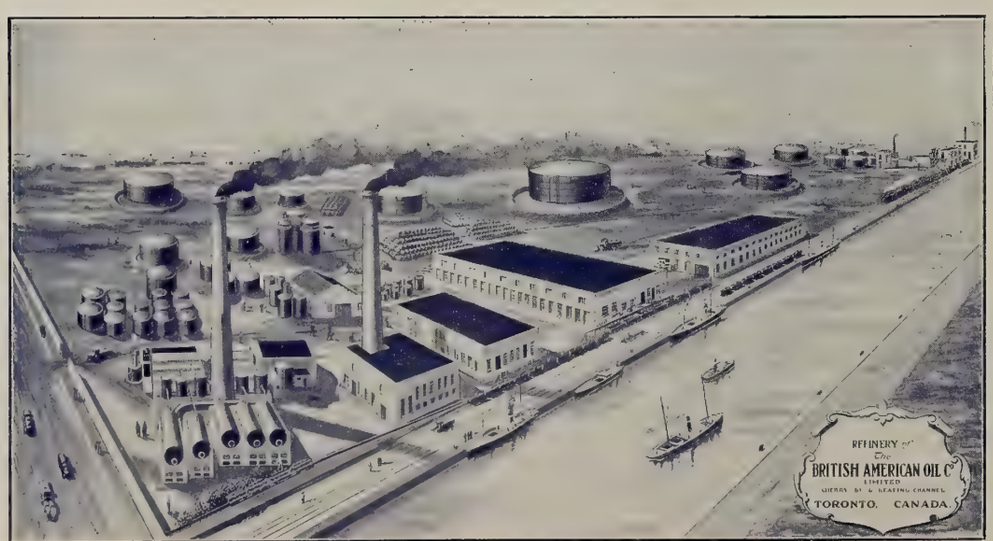
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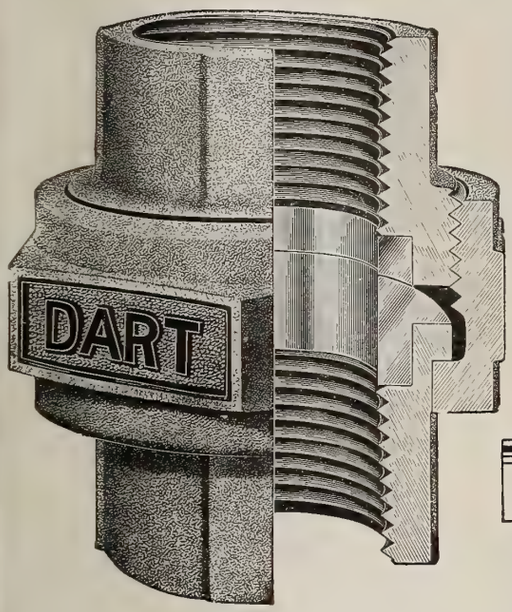
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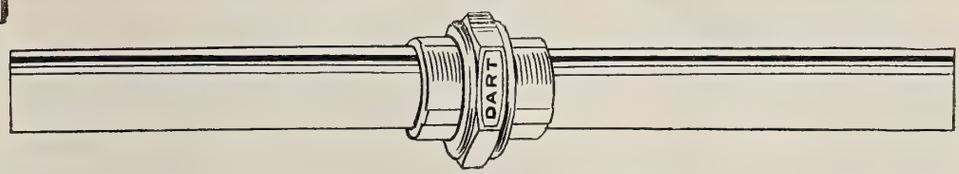
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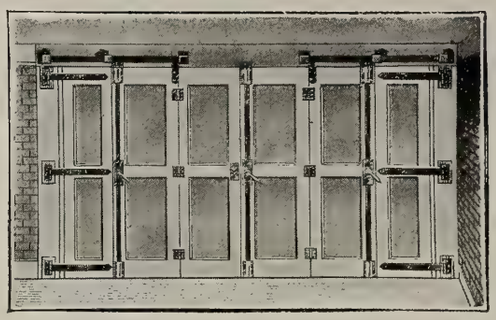
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For Garages and Drive Barns.
Any number of Doors in the series.



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For openings up to 18 ft. wide and any desired height. Doors fold up in small space inside building and fit perfectly tight.



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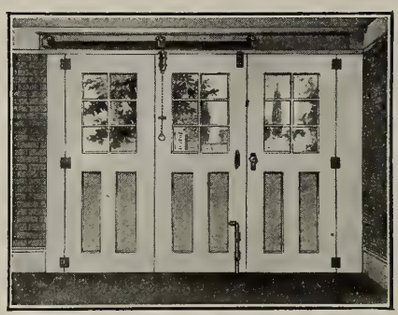
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Two doors open each way. Ice and snow does not interfere with operation; close perfectly tight. For openings 10 to 13 ft. wide.



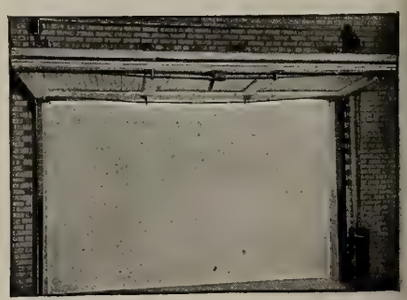
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For Elevator Openings, Freight Sheds.



FOLDING SLIDING DOORS IN CHURCHES, SCHOOLS OR THE HOME.
Most satisfactory way to hang such doors is on "R-W" Trolleys. Specify: "R.-W No. 135 Hangers."



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Fits tight. No warp or sag.



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For doors from 100 to 2,500 lbs. They have no equals.

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VANCOUVER B. C. Equipment Co.
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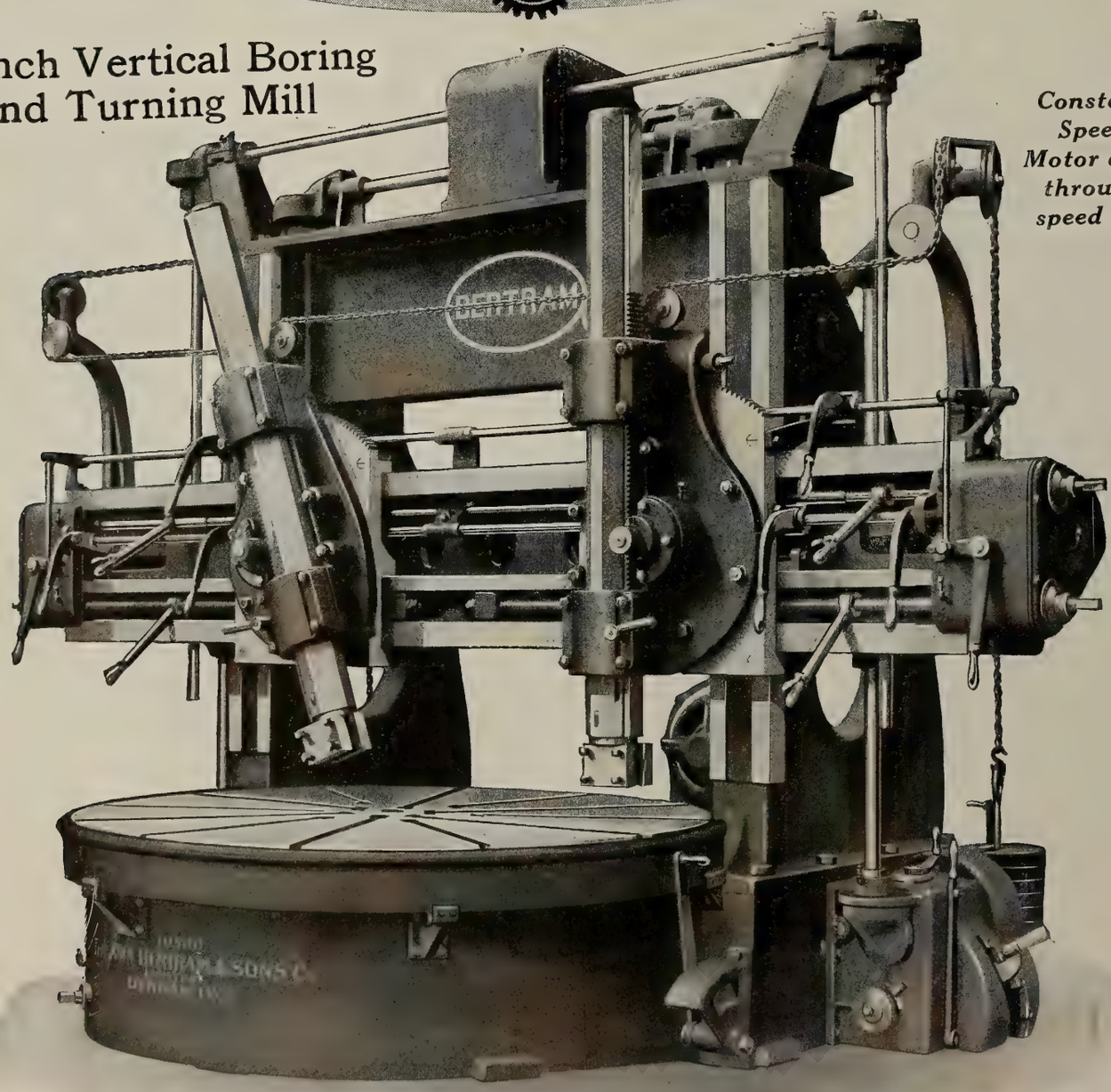
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The BERTRAM Page

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84-inch Vertical Boring and Turning Mill

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P 1330

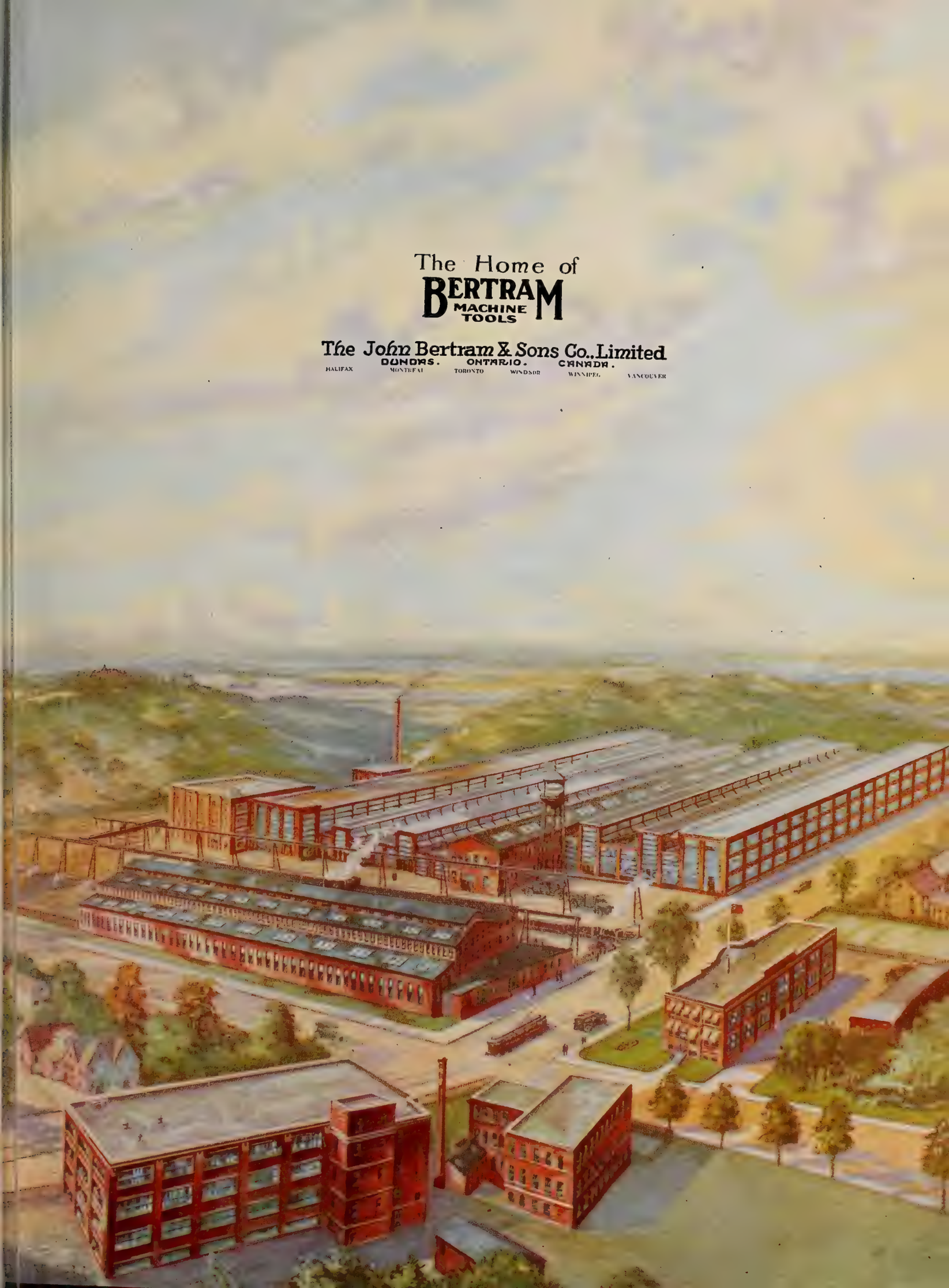
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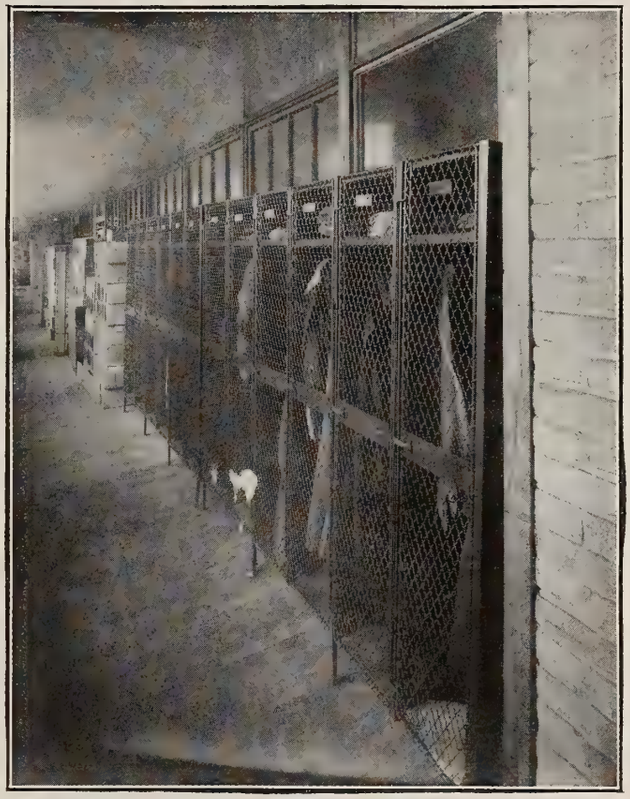
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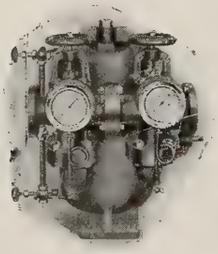
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Limited

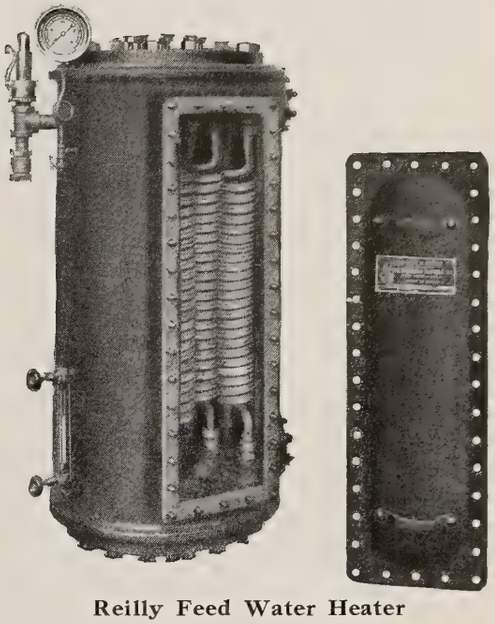
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Submerged Type



Reilly Multi-Screen
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Reilly Feed Water Heater

Made in Canada by a Canadian Company



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A thorough knowledge of the physical properties of the metal to be ground is the first essential to the economical use of the grinding wheel in the foundry. The selection of the proper abrasive is entirely dependent upon this knowledge.

For materials of high tensile strength—annealed steels, malleable or wrought iron—the best results will be obtained by using Alundum wheels. On grey cast iron, chilled iron, malleable iron, brasses, bronzes, aluminum or copper, Crystolon wheels will be found the most efficient.

The size of the wheel, the amount of material to be removed and the nature of the material readily determine the size of the grain. Finish is seldom a consideration; therefore it is always best to use as coarse a wheel as practicable.

The speed of the grinding wheel is of the utmost importance, and must be held within the correct speed range of from 5,000 to 6,000 surface feet per minute if proper cutting action and economy in wheel consumption are to be obtained.

The life of a grinding machine largely depends upon the care it is given—all bearings must be kept adjusted and in good condition—the spindle must be rigid, and the foundation solid. A grinding wheel that vibrates or jumps is soon pounded to pieces by the shocks and stresses from the action of the castings on the face of the wheel.

The personal factor should be given careful consideration. No two men will get the same life or production out of a wheel even though the work and conditions are identical—some work the corners hard, are abusive in applying the casting, or will remove too much abrasive in dressing. All these factors have their effect and often the manufacturer is unjustly blamed for apparent variations in wheel life when the true cause can be attributed to the personal factor.

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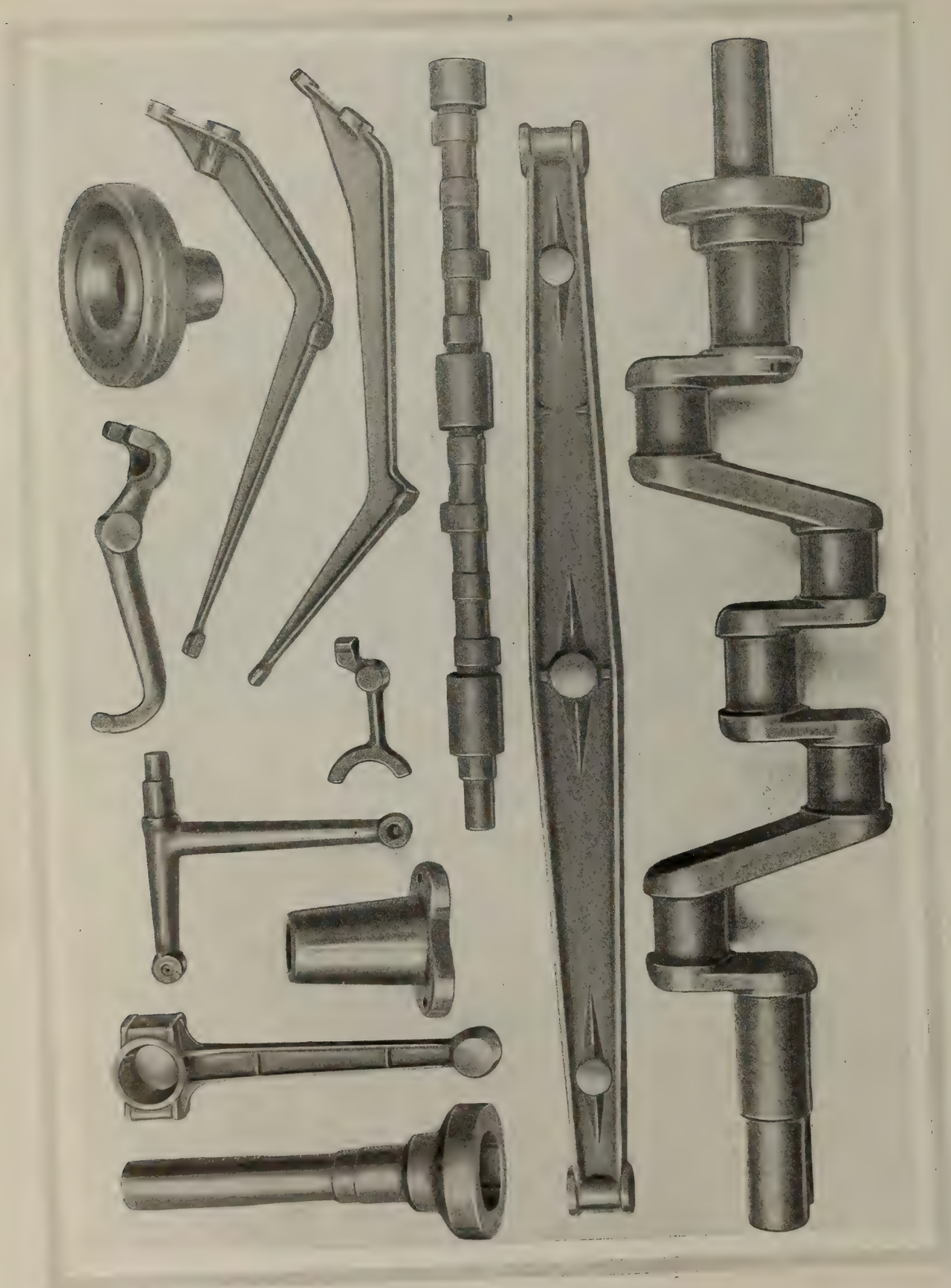
It goes without saying that during the period of reconstruction, when manufacturers in all lines will be adapting their plants to peace-time production, competition will be unusually keen. This means that production economies must be diligently sought for. And in this connection the use of the best grade of cutting tools will be of good service. Butterfield Carbon and High-Speed Twist Drills, Gear and Milling Cutters, Side Mills and End Mills, with straight or spiral flutes, and plain or nicked teeth will give you accuracy, fast work and long service—the three essentials of tool efficiency.

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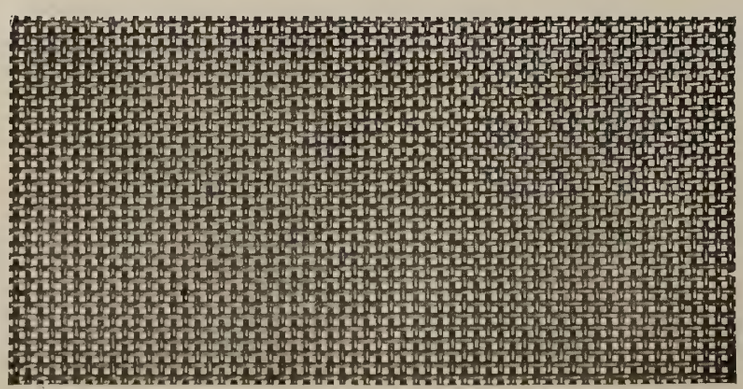
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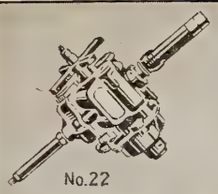
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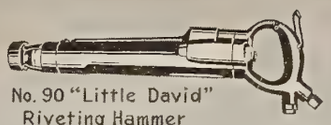
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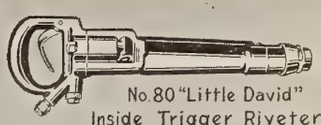
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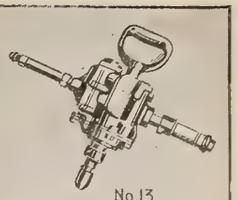
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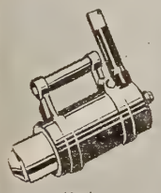
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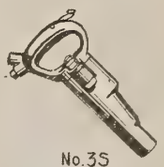


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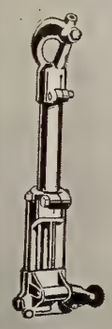
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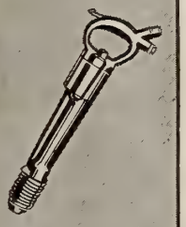
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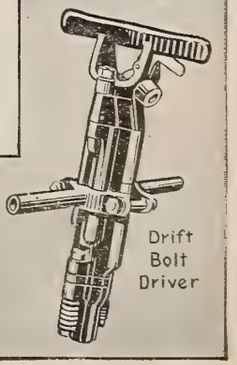
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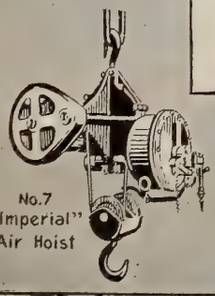
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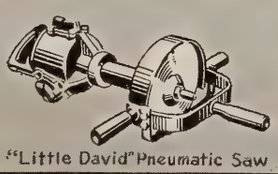
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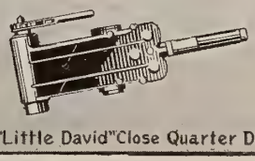
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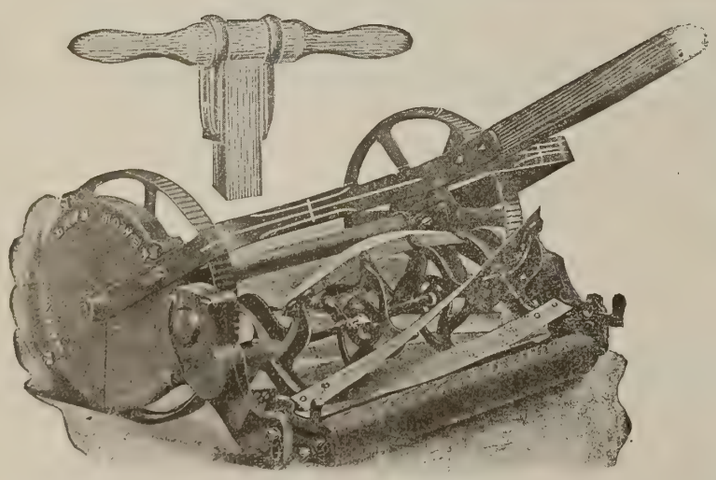
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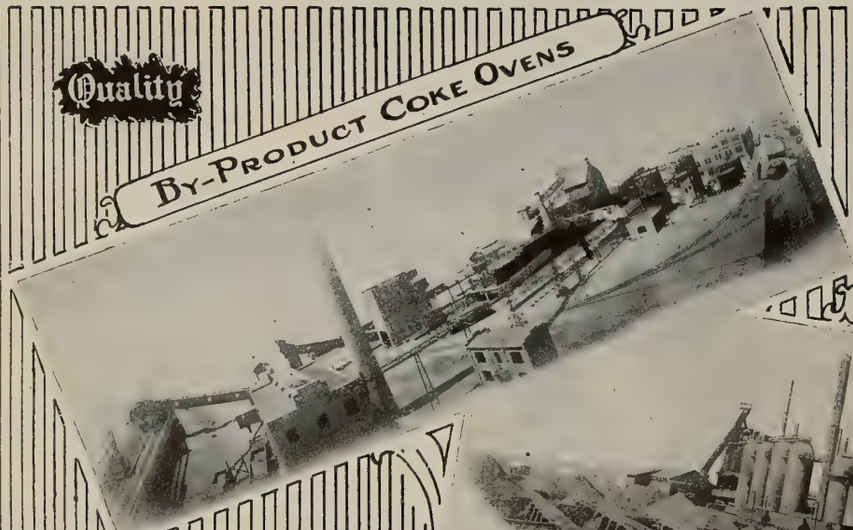
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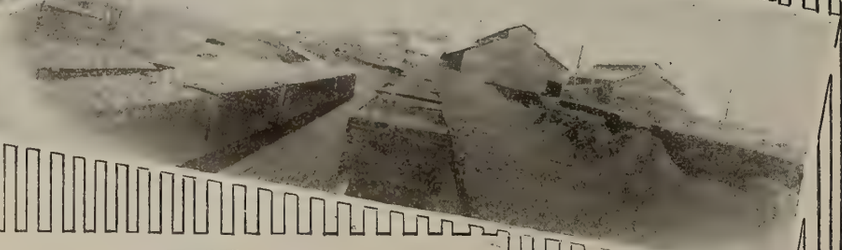


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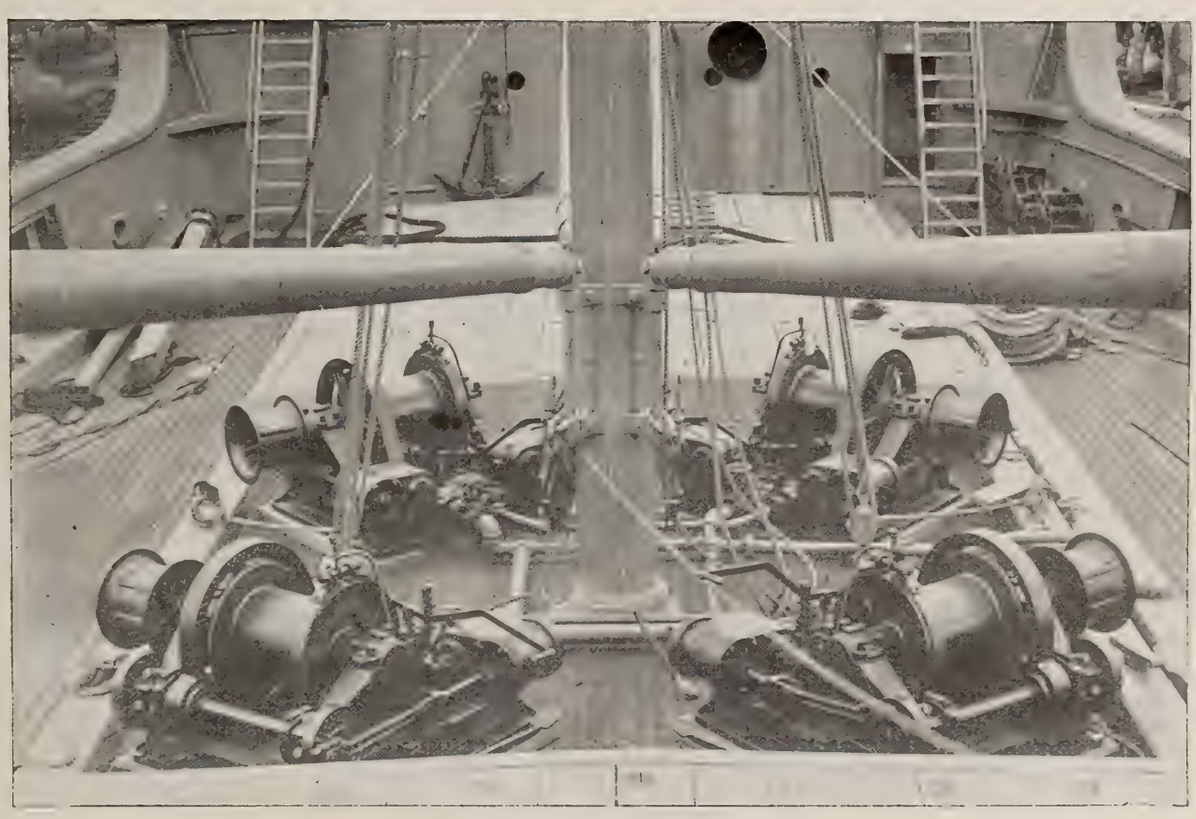
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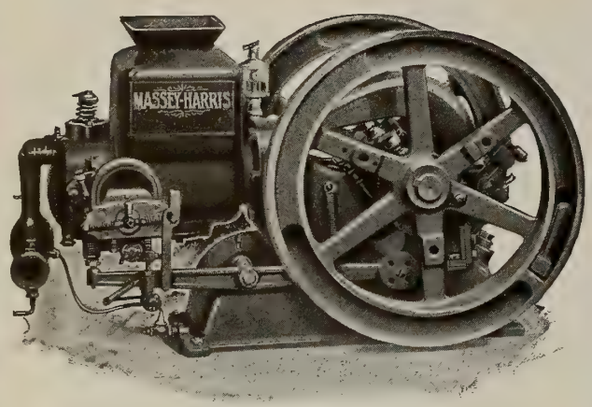
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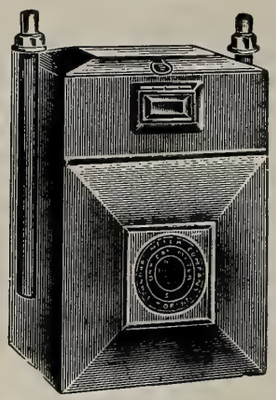
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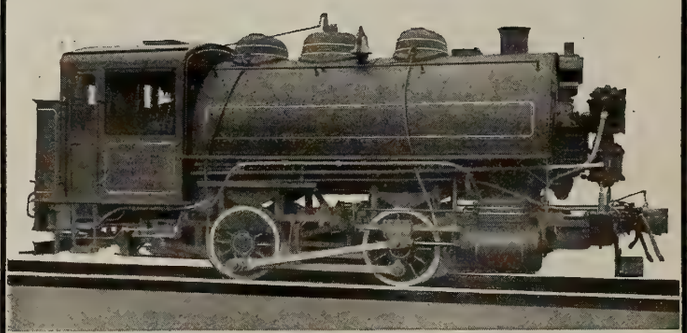


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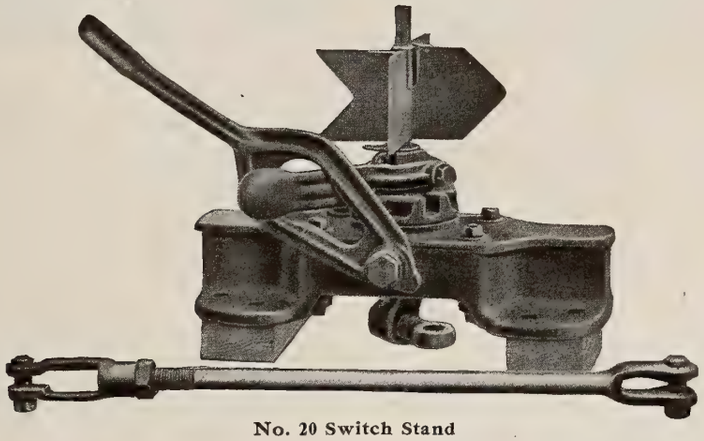
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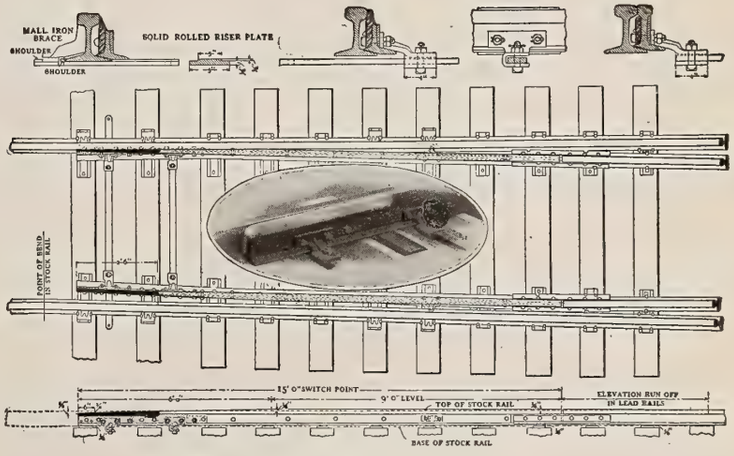
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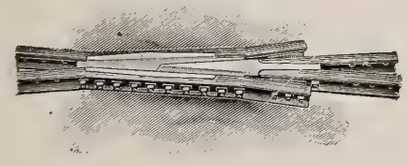
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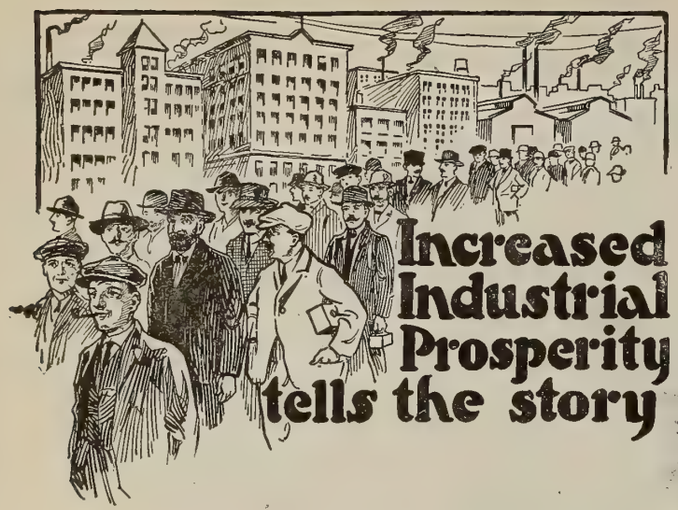
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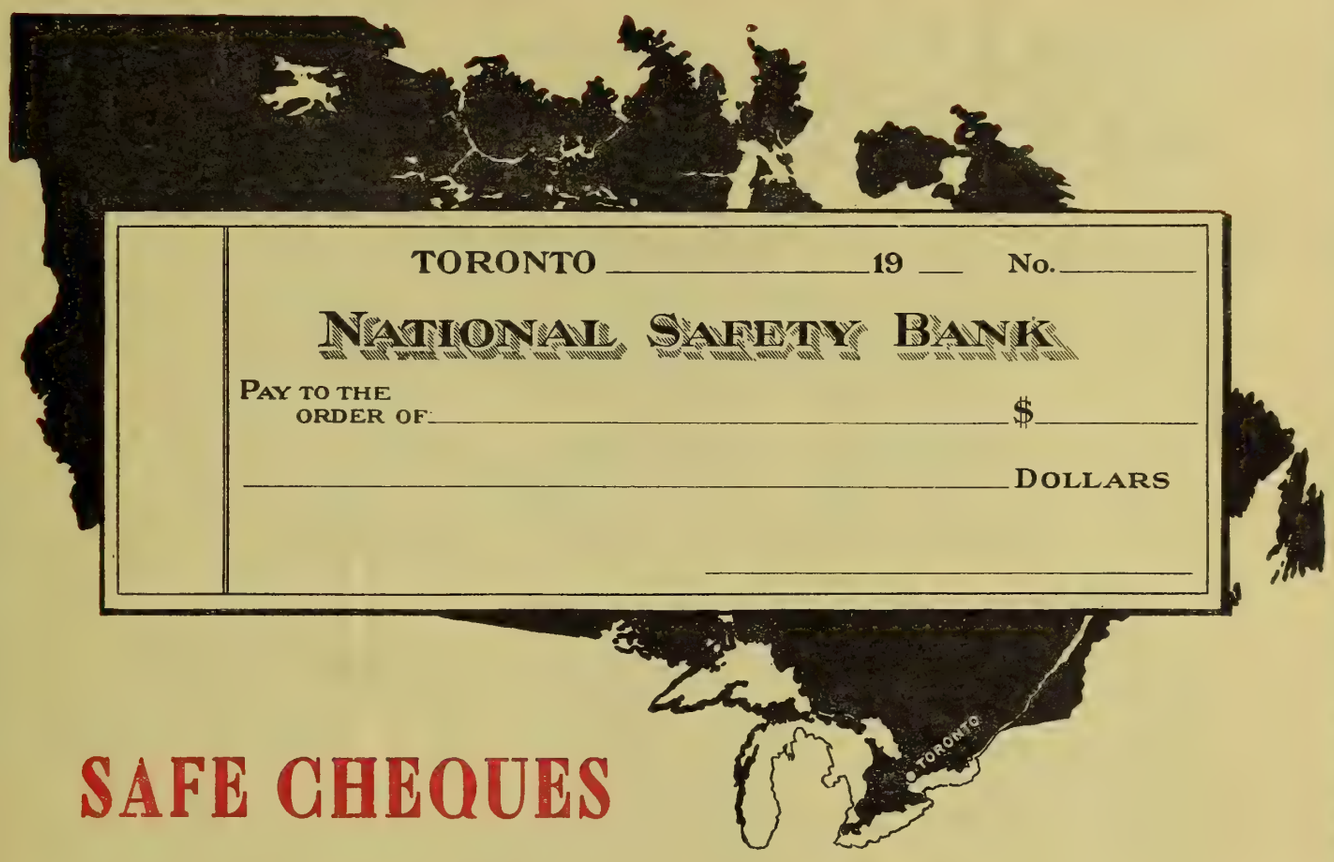
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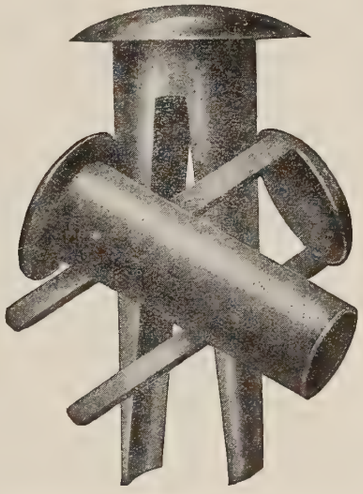
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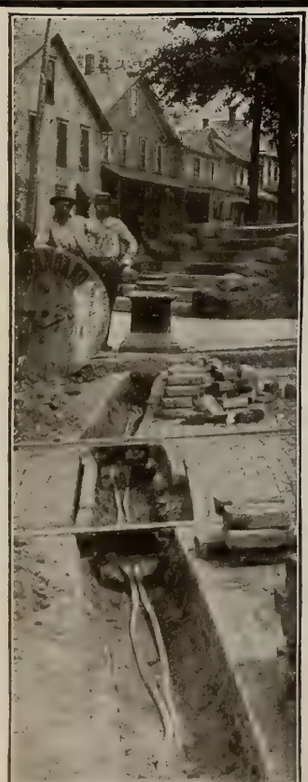
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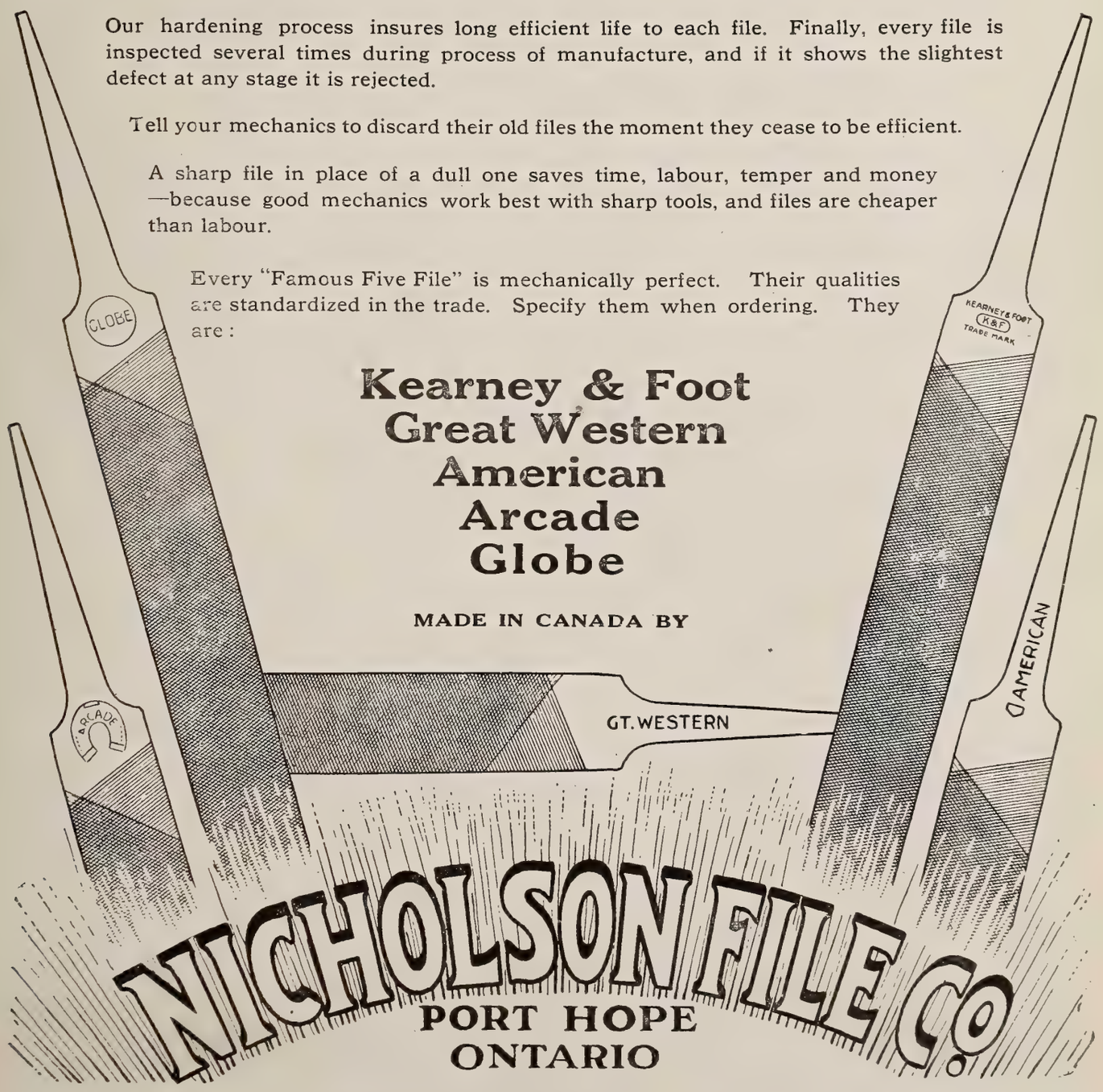
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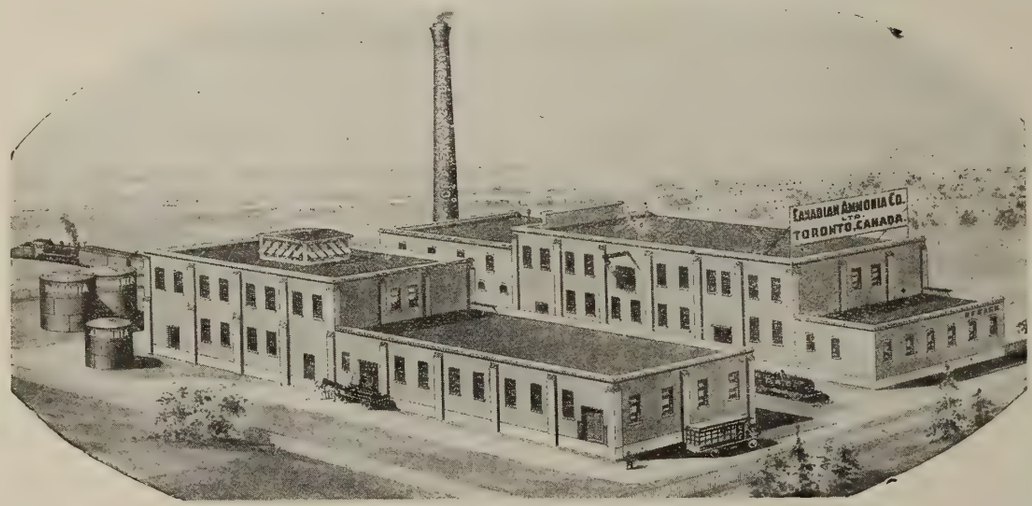
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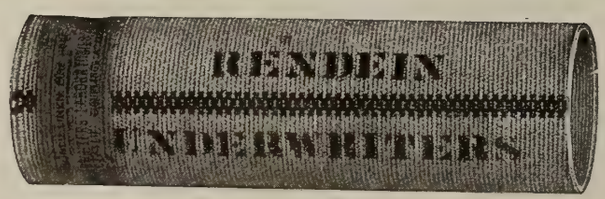


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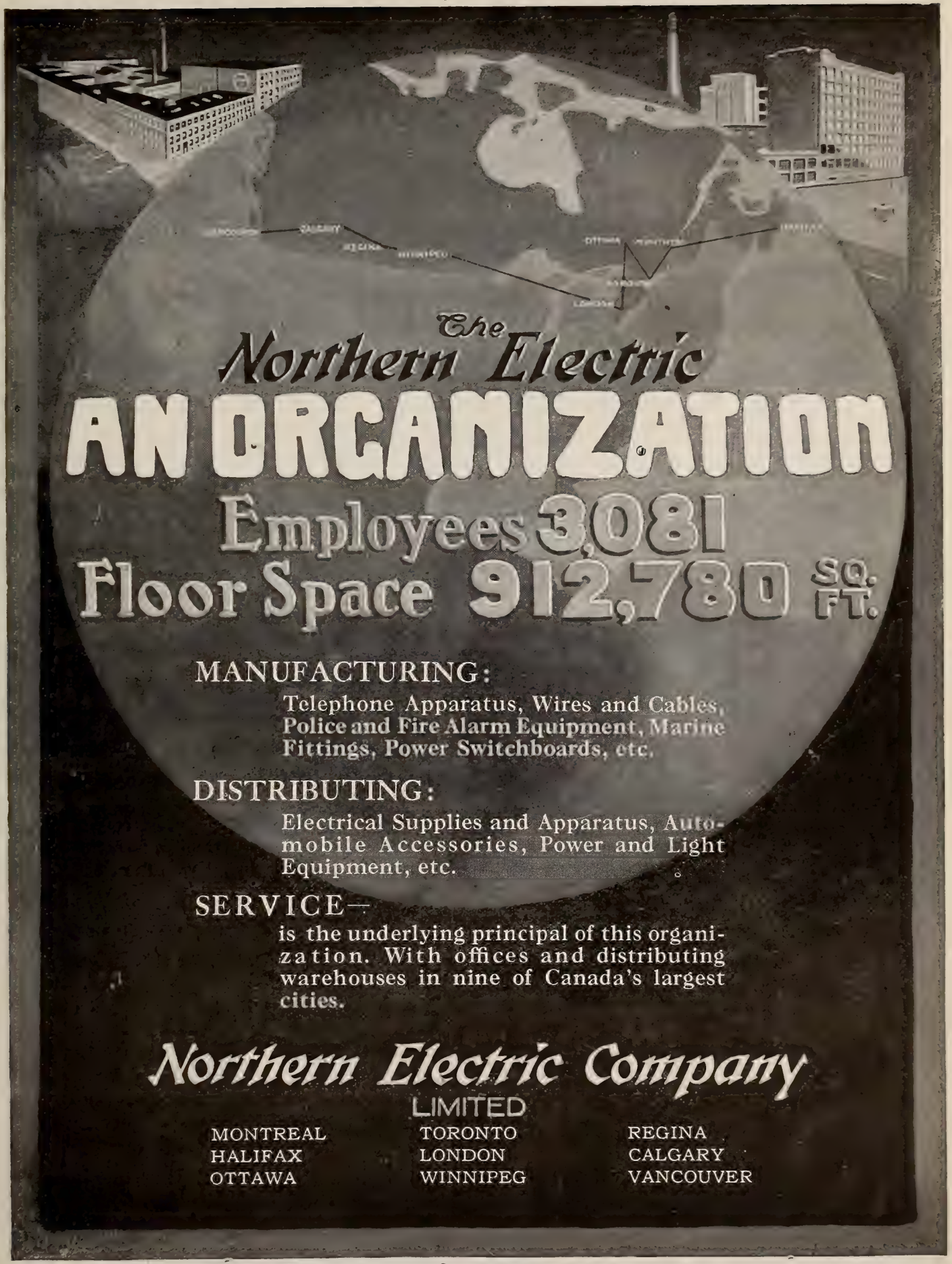
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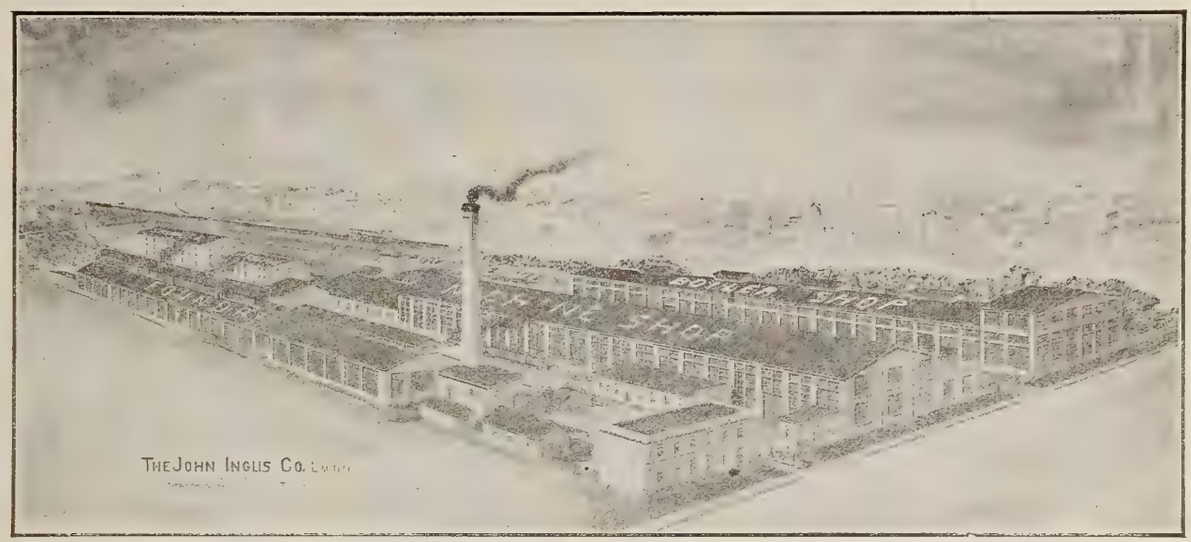
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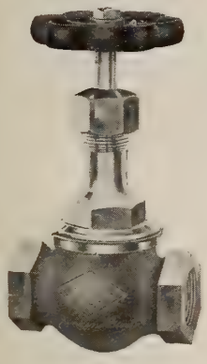
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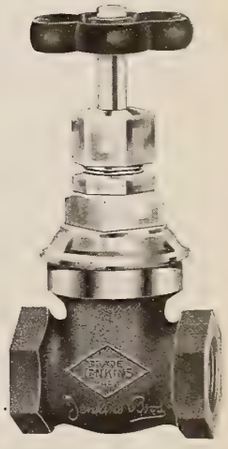
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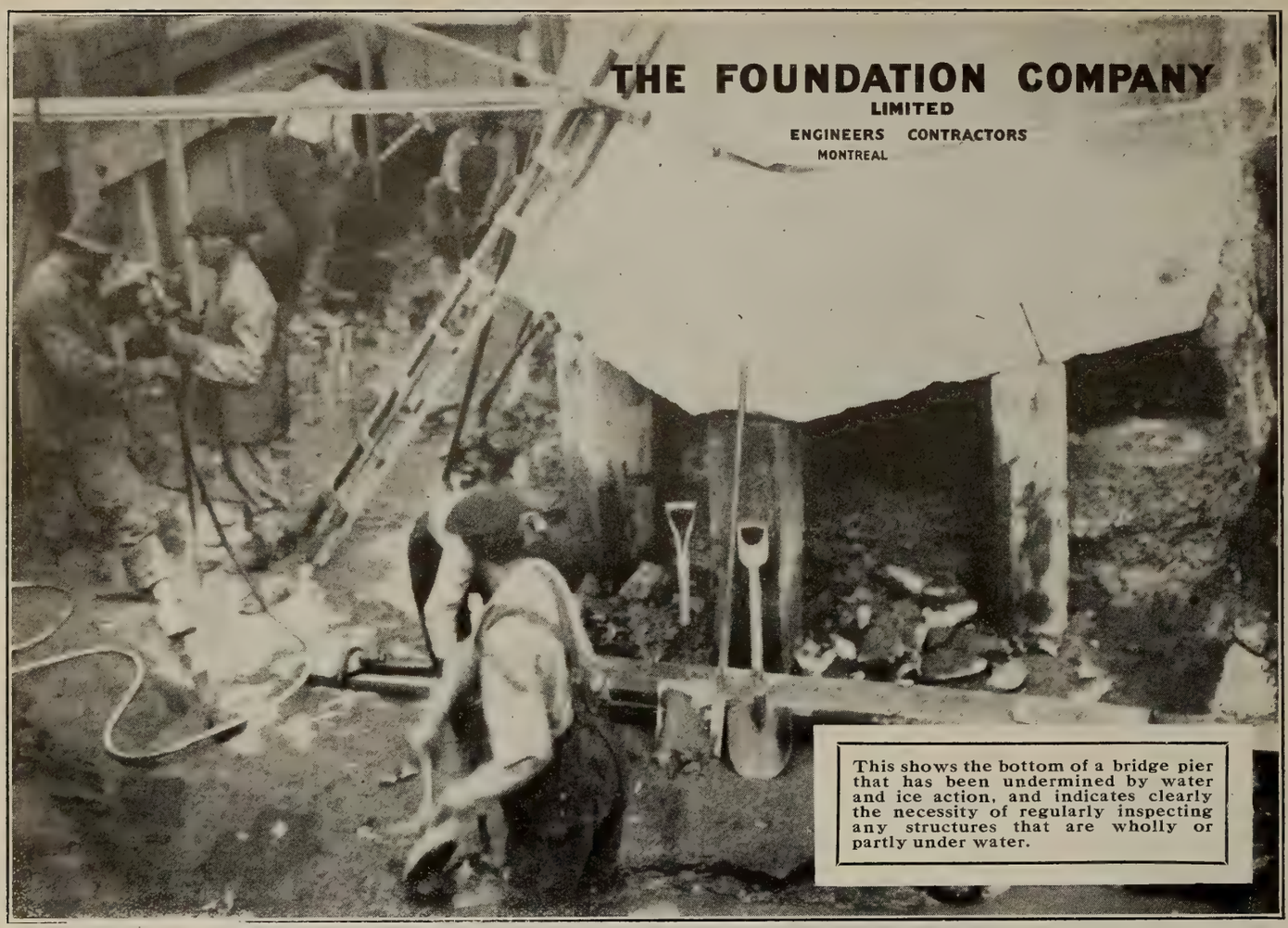
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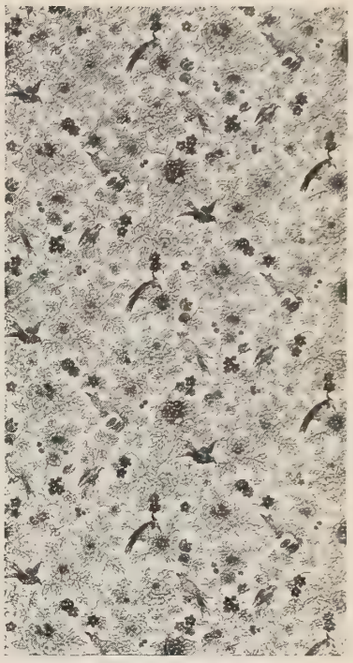


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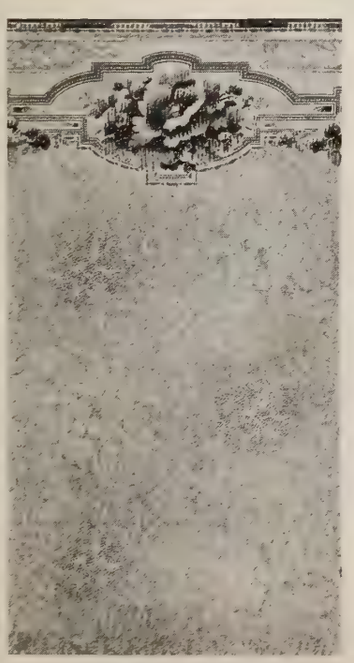


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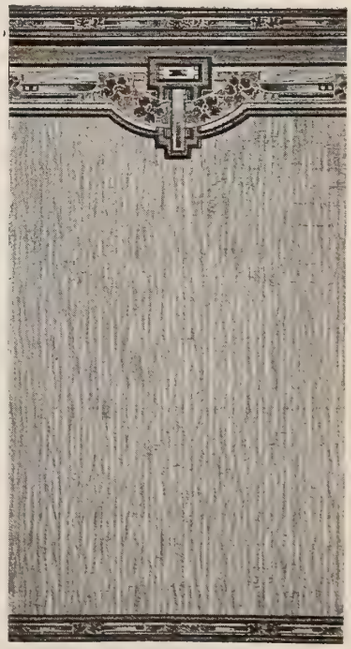
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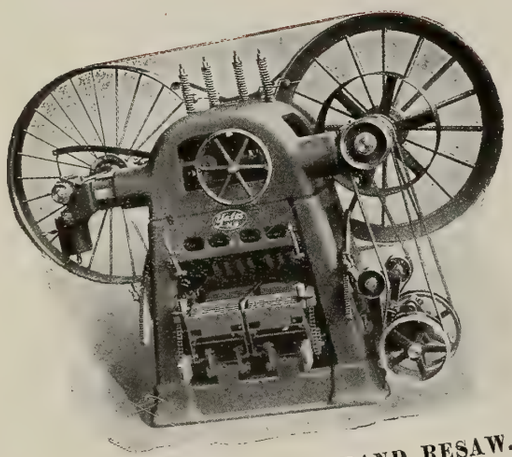
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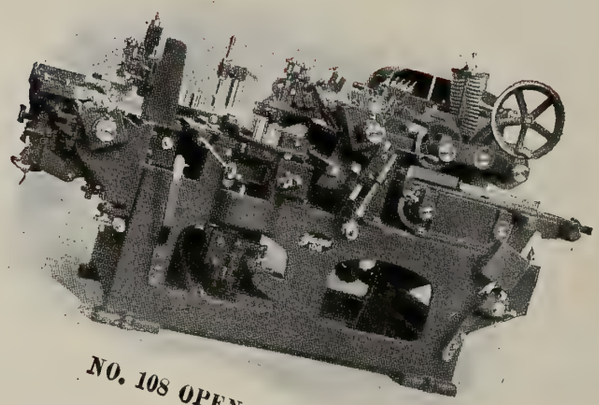
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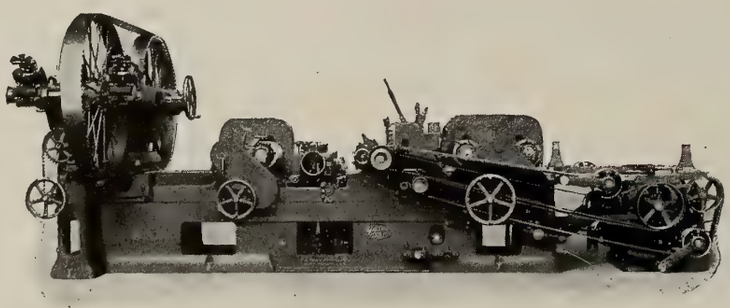
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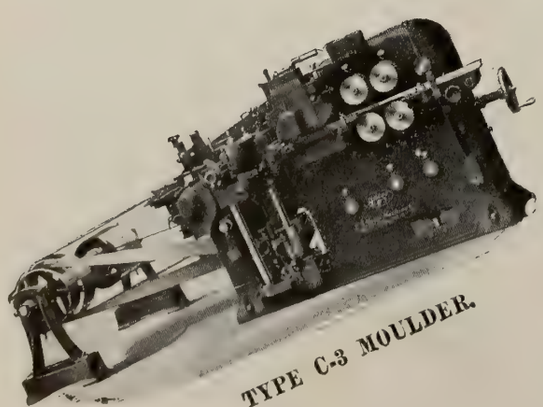
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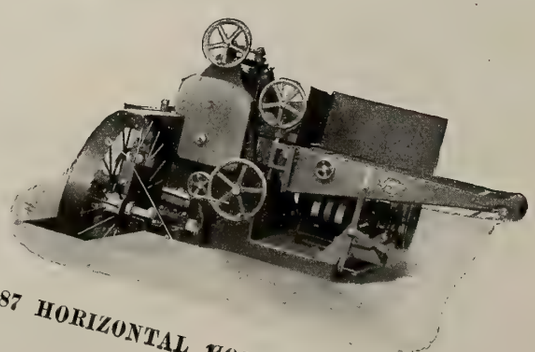
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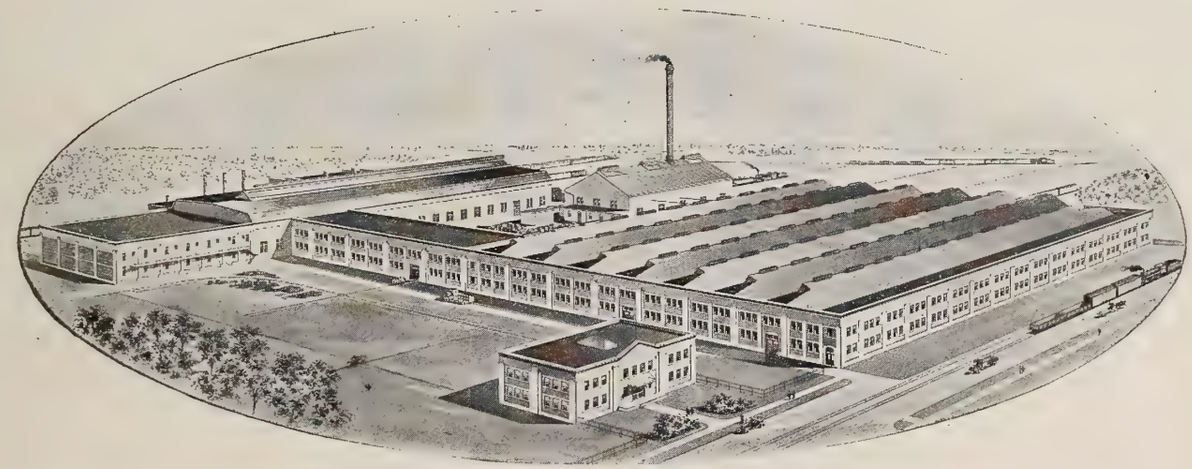


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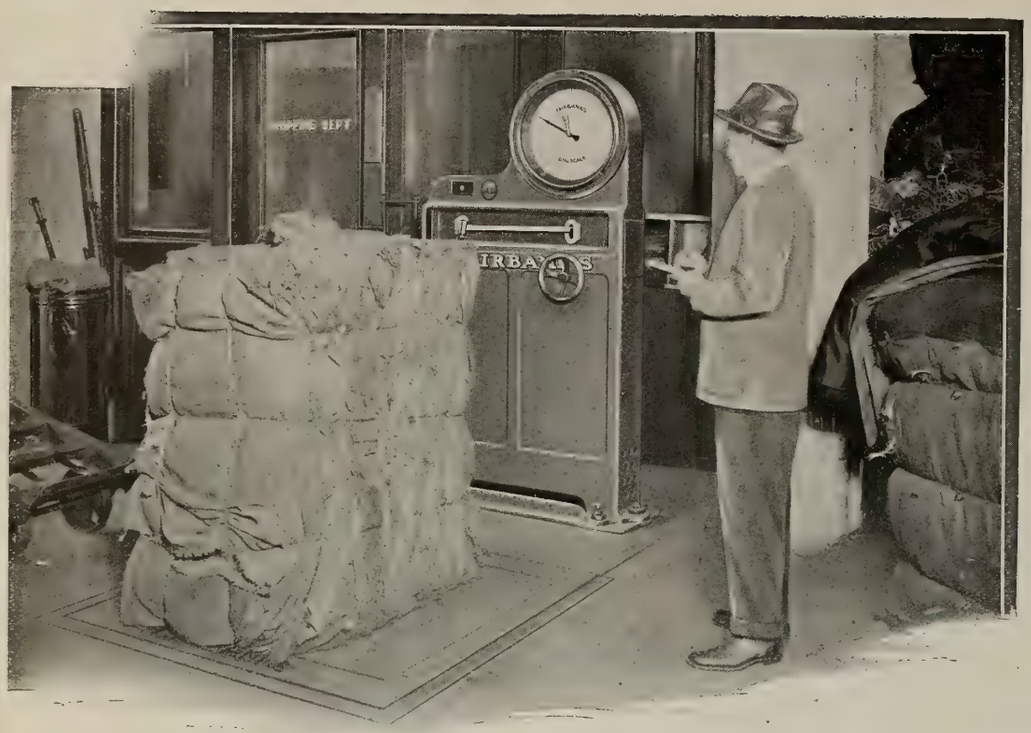
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Fairbanks Dial Scales eliminate all the waste time and labor it is possible to save. They put your weighing on an efficient basis. The plainly graduated dial does this.

Fairbanks Renewable Disc Valves

Create a new efficiency in valves. The disc of these valves are renewable in less than a minute, without removing the valve from the line—and a wrench is the only tool needed.

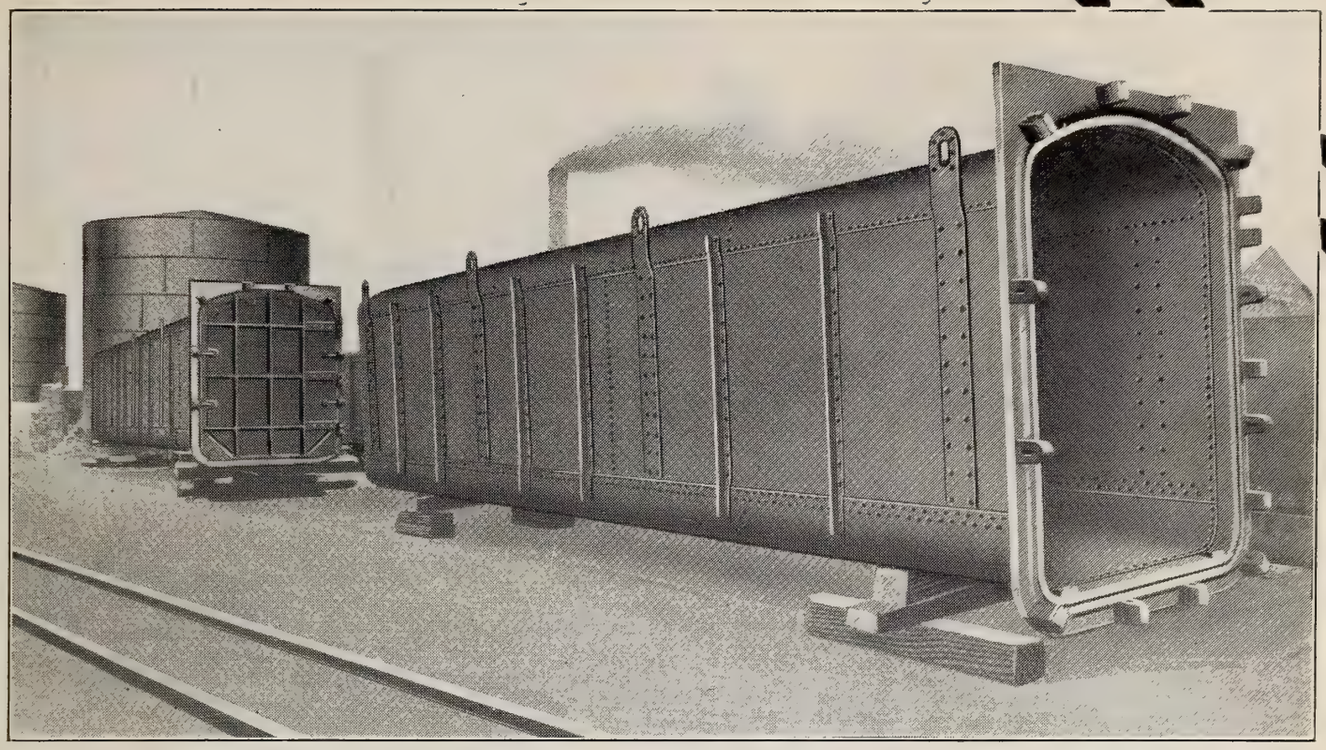
Ask us about Fairbanks Scales and Valves for your plant.

Our nearest branch will give you the fullest co-operation.



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IF you require a steel storage or pressure tank consult us. Every tank we make is made to rigid specifications, and is guaranteed to give service and satisfaction.

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For Oil Refineries
Oil Distributing Stations
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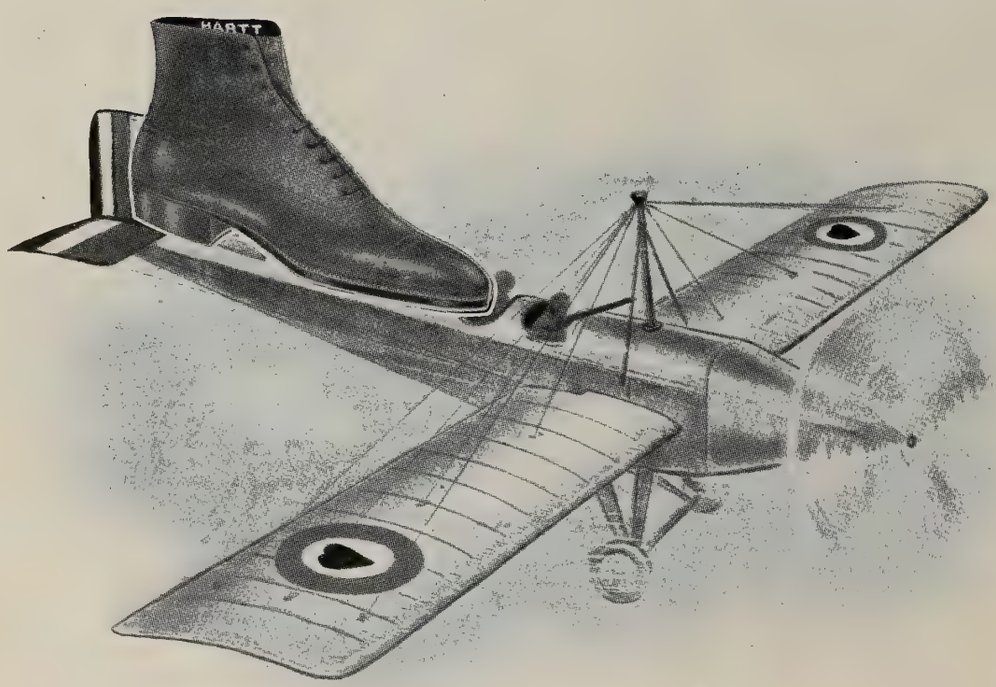
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On Top
The Ace of
"HARTTS"



Let Us Forget Prejudice

Why cripple Canadian enterprise further with the prejudice that certain things are better if they come from abroad?

Let us recognize the fact that in many lines Canada can equal or excel others.

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"Canada's Best Shoemakers"

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CANADIAN TUBE & IRON CO., LIMITED

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Is Demanded for Welding and Cutting
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It Insures Fffectiveness and Economy by Invariably Producing Acetylene Gas of Unusual Purity



Imperial Carbide is made by the most modern methods, from the best raw materials obtainable, and is guaranteed to give complete satisfaction.

We manufacture **Imperial Carbide** of the same quality, in sizes suitable for town lighting, mine lighting, construction work, marine lighting, etc.

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Neponset Paroid and "Neponset" Twin Shingles are the exclusive manufacture of Messrs. Bird & Son.

Neponset Paroid was first introduced 21 years ago to supply the demand for a ready roofing that was serviceable, that would give continuous hard wear, was fire and weather proof, and yet economical in its first cost.

Neponset Paroid is the best ready roofing material on the market to-day, as it has been for years. Hundreds of Factories, Railroad Buildings and Warehouses throughout the Dominion, although roofed with Neponset Paroid a number of years, yet show no appreciable sign of wear from exposure to sun or rain.

IT IS NEPONSET PAROID OR IT IS NOT PAROID

Paroid does not represent all ready roofings, but is the exclusive manufacture of Messrs. Bird & Son, and belongs to the great NEPONSET FAMILY, the trade name for Messrs. Bird & Son products.

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PAROID

is a ready roofing that is unaffected by weather, is both water and fire proof. Composed of tough roofing felt, thoroughly impregnated with Asphalt and surfaced with crushed slate, Neponset Paroid offers an ideal roofing material for Railroad Buildings, Factories, Warehouses, Barns, etc.

Neponset Paroid represents an economical yet serviceable roof---one that will outlast the ordinary roof by many years, and one that can be constructed at moderate cost.



NEPONSET
TWIN SHINGLES
Asphalt Saturated Slate Surfaced

are two shingles in one, they are easily and quickly laid and require less nails than any other shingles.

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Hamilton, Ontario

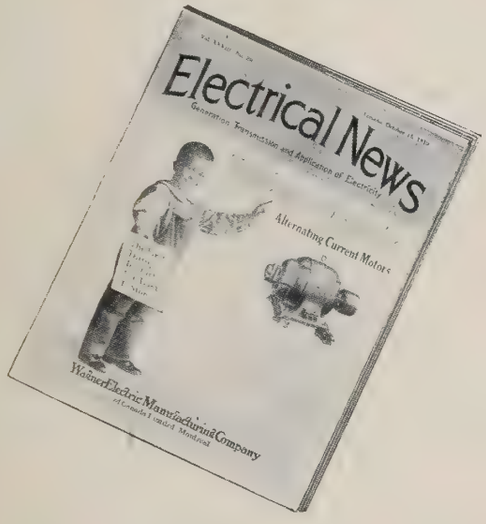
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Canadian Woodworker

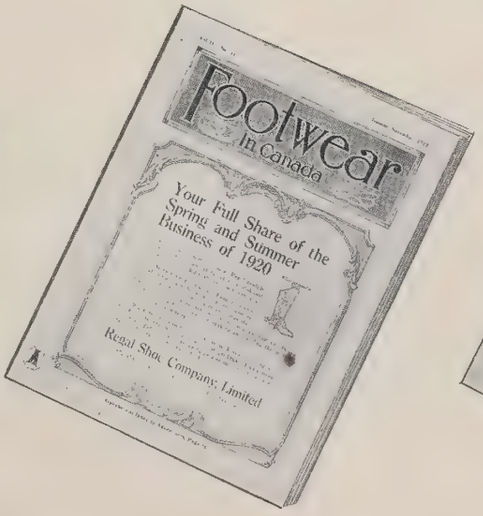
The only paper in Canada expressly published for the manufacturers of wood products such as furniture, pianos, phonographs, boxes, turned goods, cabinet work, sash and doors, etc. A practical paper that thoroughly covers its field. Published once a month.

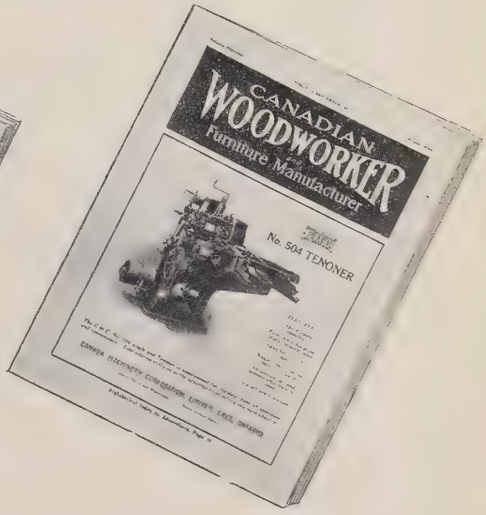
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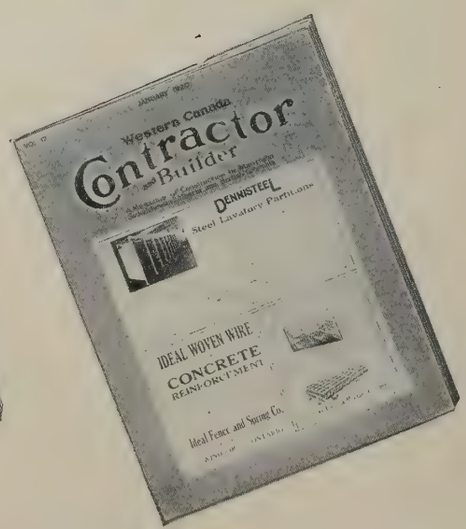
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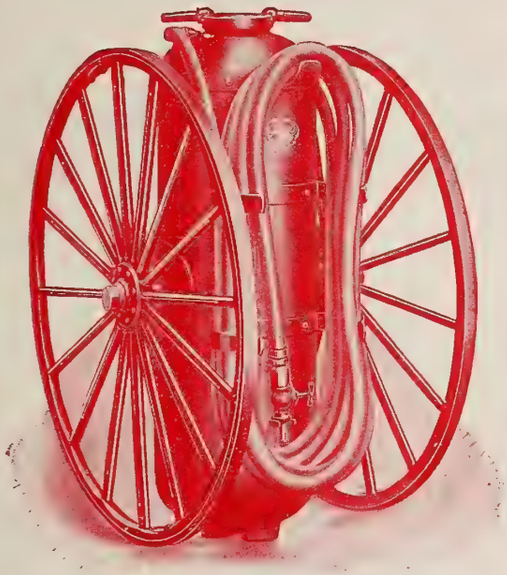
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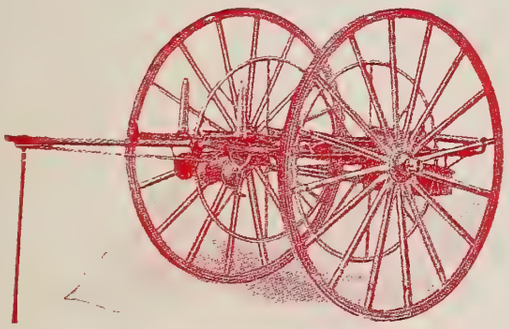
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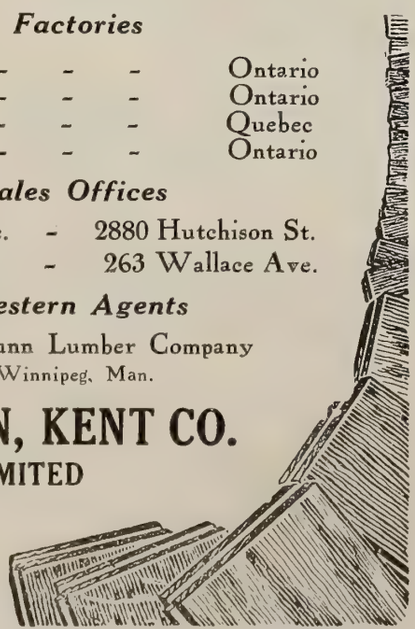
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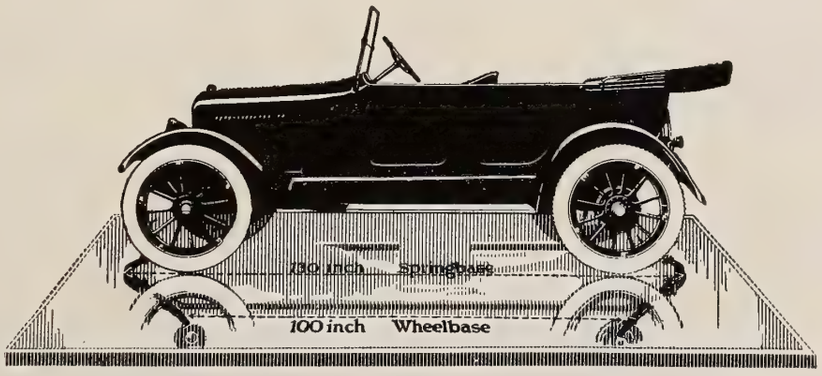


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OVERLAND 4's three-point suspension *Triplex* Springs distinguish it from other motor cars. They make rough roads seem smooth. The result is a degree of comfort hitherto never attained in a light car. By combining a 130-inch Springbase with a 100-inch Wheelbase, it has been made possible to combine ease of riding with ease of handling---and the economy in upkeep, tires, oil, gasoline, that goes with a light car.



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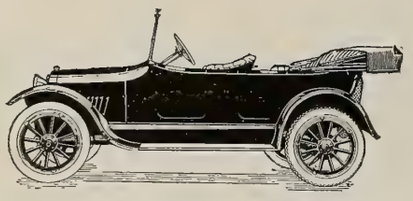
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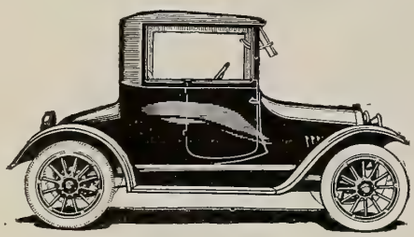
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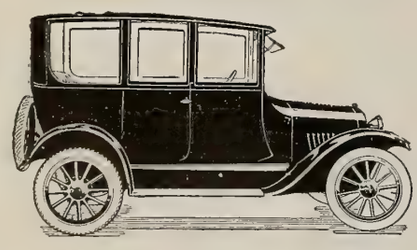
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Model Four-Ninety Coupe



Model Four-Ninety Sedan

From the standpoint of the cost per mile motoring, the Chevrolet is most economical.

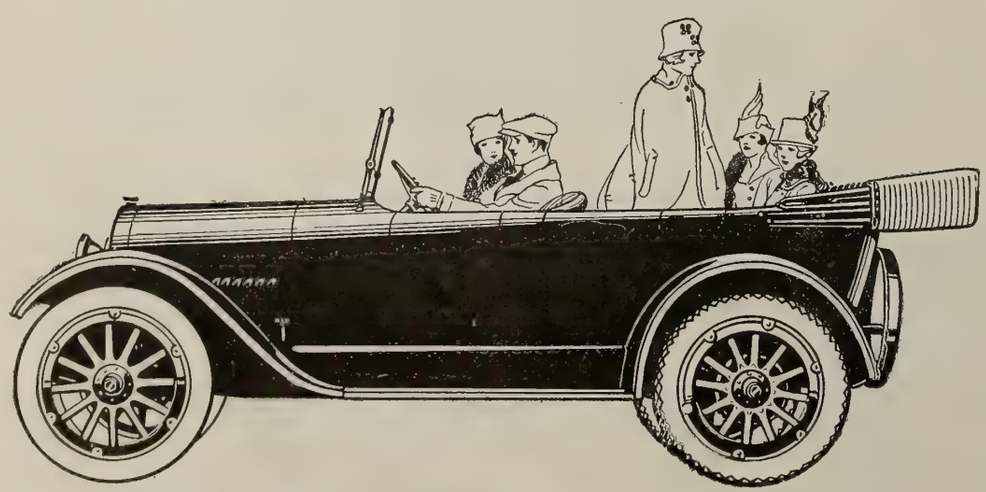
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The time saved enables the busy man to crowd more into the busy day.

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Announcing A TRIUMPH

1920 McLaughlin Master Six now ready



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LEADERSHIP was ever accorded the victor

Supremacy is the reward of exceptional merit in all walks of life

Canada's Standard Car owes its leadership to its inherent merit.

For 1920 the new McLaughlin Master Six more than ever maintains that reputation which has established its Supremacy from coast to coast.

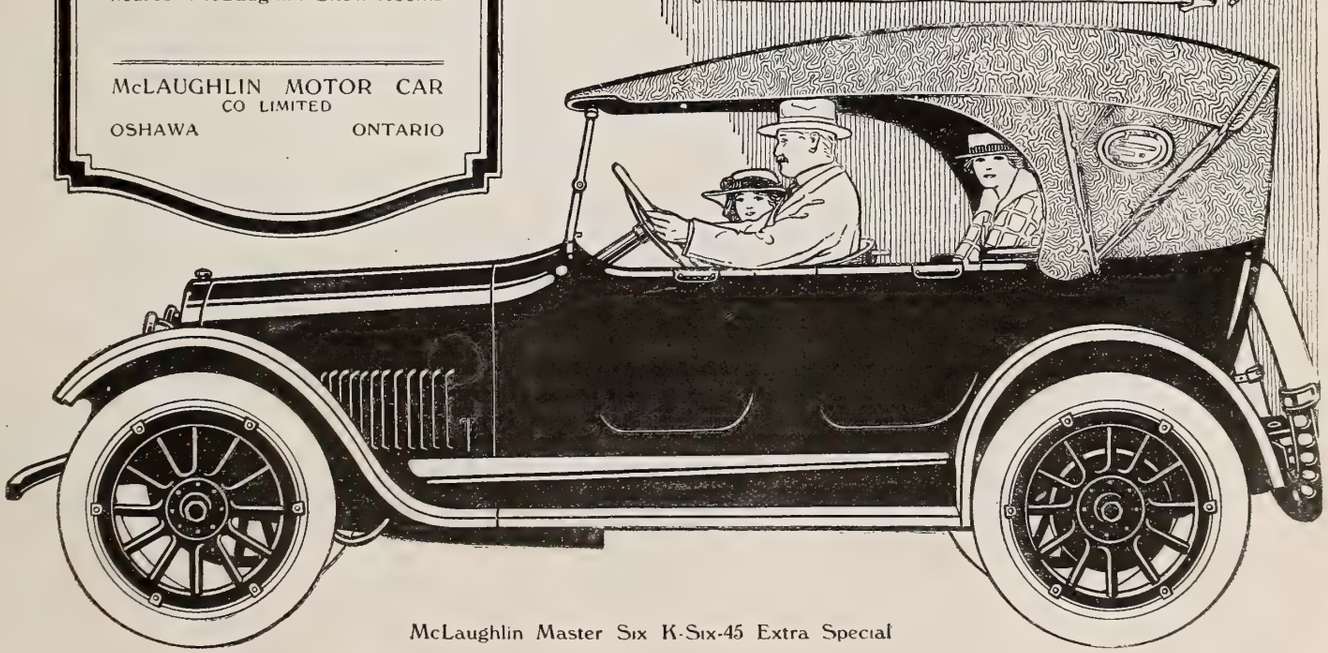
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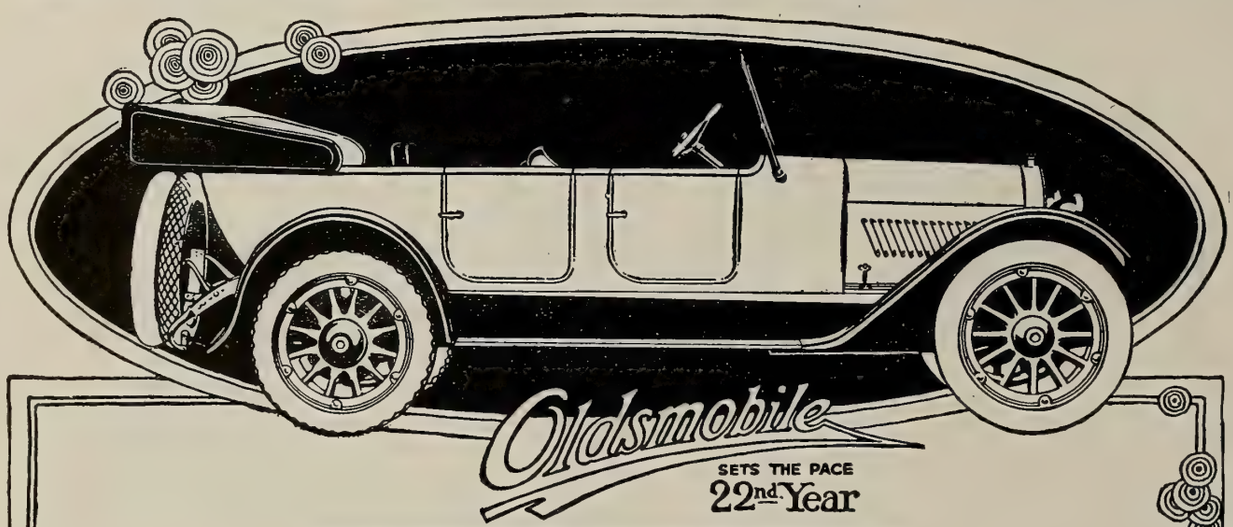
Canada's Standard Car 1920



McLaughlin Master Six K-Six-45 Extra Special

The McLAUGHLIN MASTER SIX

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THE "THOROBRED"

Conceived by master builders of automobiles, the lithe, sleek and spirited Oldsmobile "THOROBRED" does worthy honor to a long line of distinguished ancestry.

For twenty-two years the Oldsmobile has "set the pace" in style, in comfort, and mechanical excellence. On the same points the "THOROBRED" is characteristically Oldsmobile.

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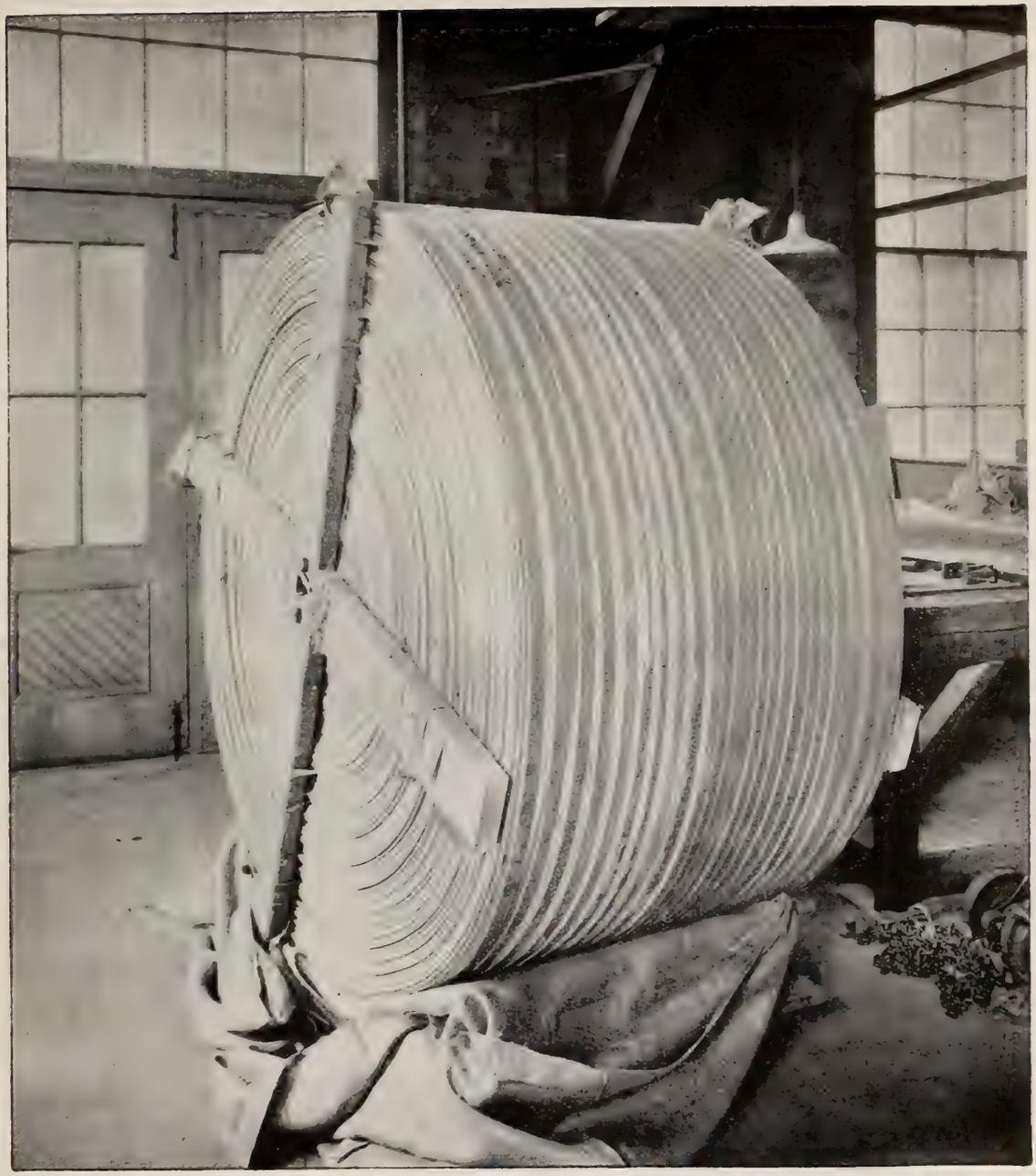
Powered with the famous Oldsmobile 8-cylinder motor, the "THOROBRED" will walk or race at the driver's whim; yet fuel economy is a dominant factor.

The "THOROBRED" is designed to comfortably seat seven, and is moderately priced. Permit us to send descriptive literature or arrange for a demonstration.

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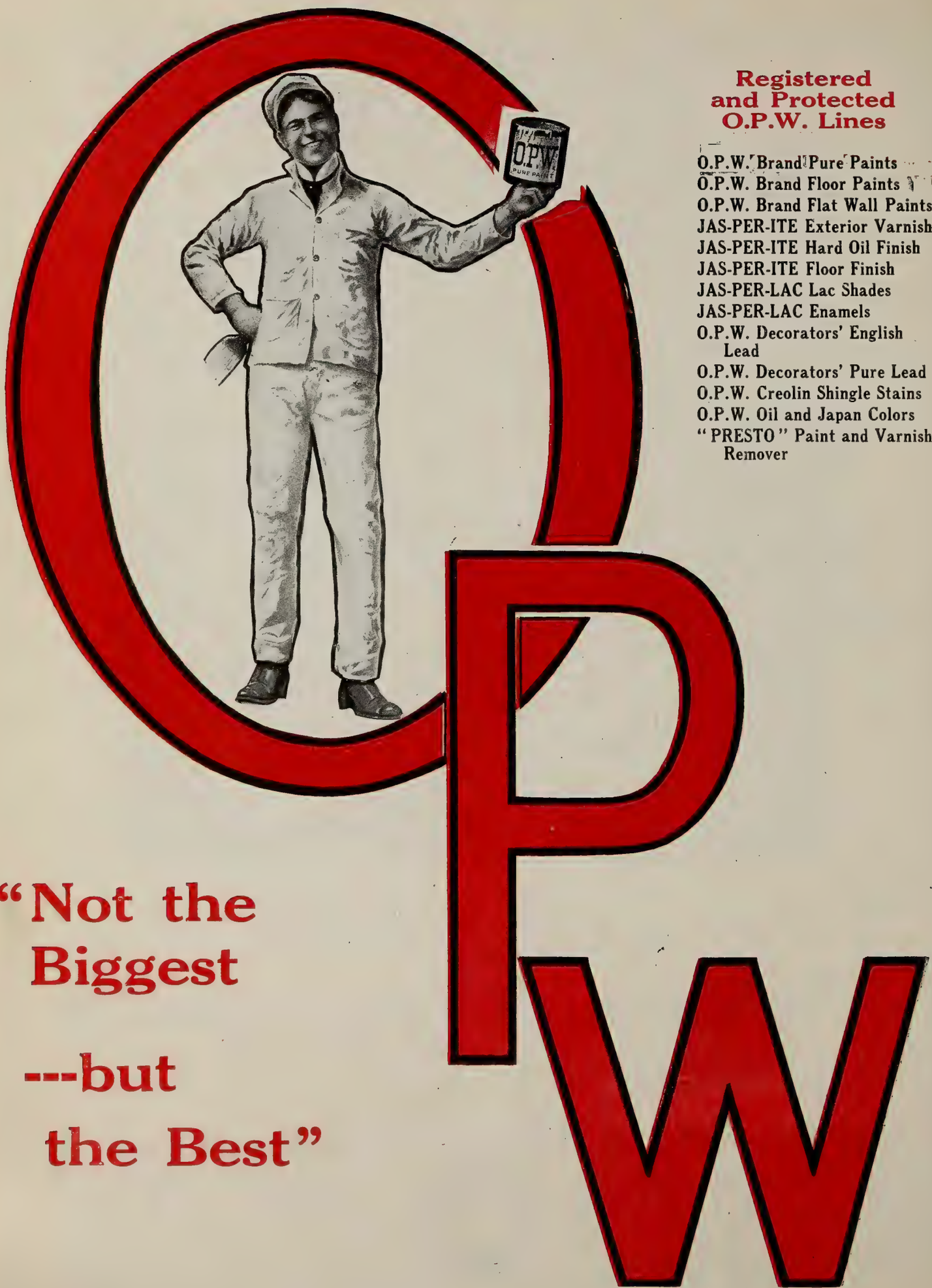
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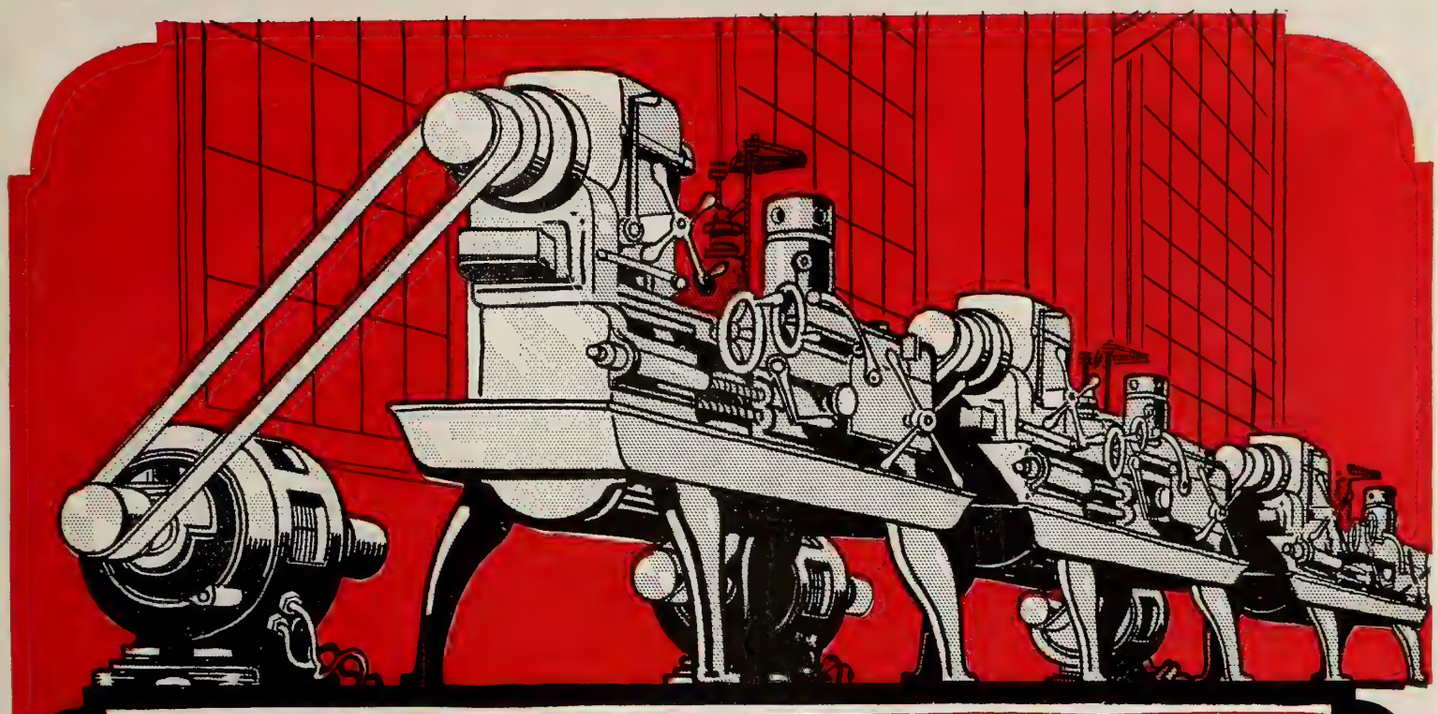
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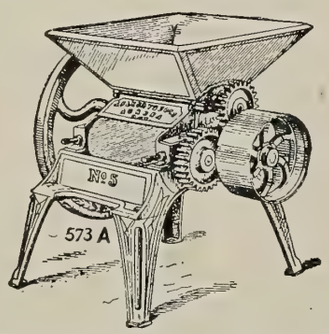
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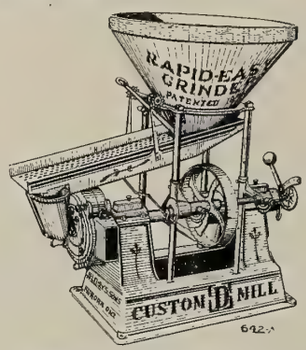
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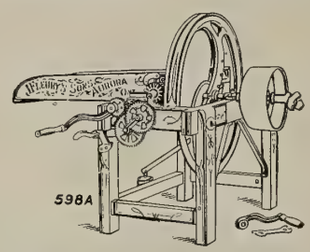
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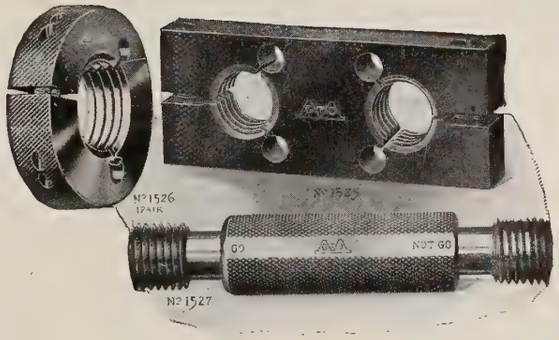
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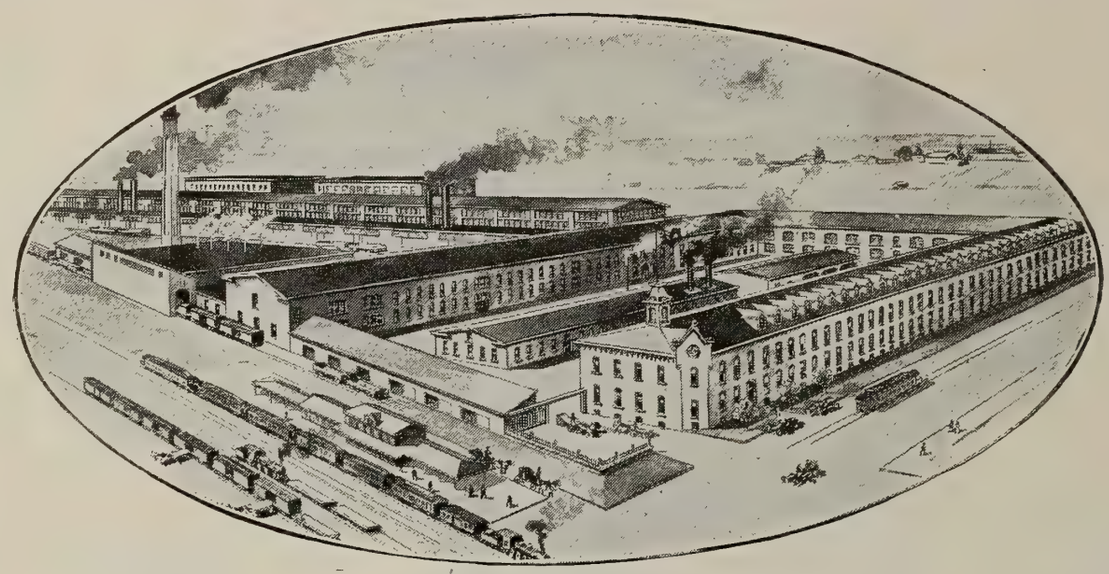
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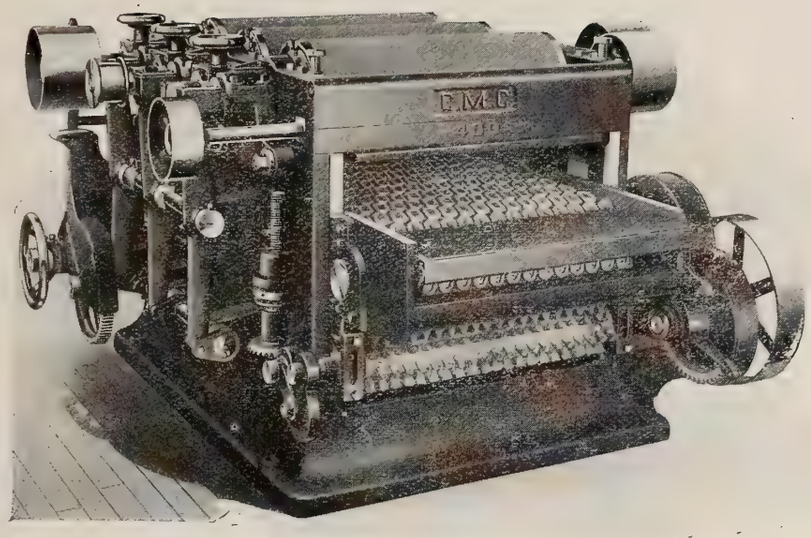
The C.M.C. trademark, which appears on all machine tools for wood or iron working manufactured by us, is a guarantee that the quality and workmanship are of the highest standard.

It is impossible for us to illustrate even a fair proportion of the machines that we manufacture, but with a view of demonstrating the selection we have to offer the trade we are showing a few of them only on the next page.

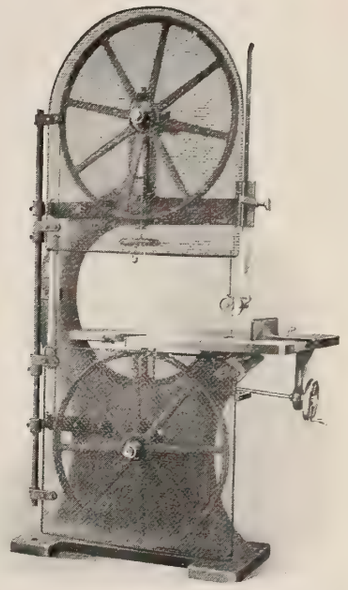
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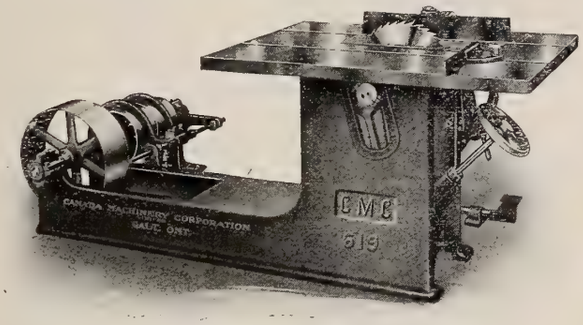
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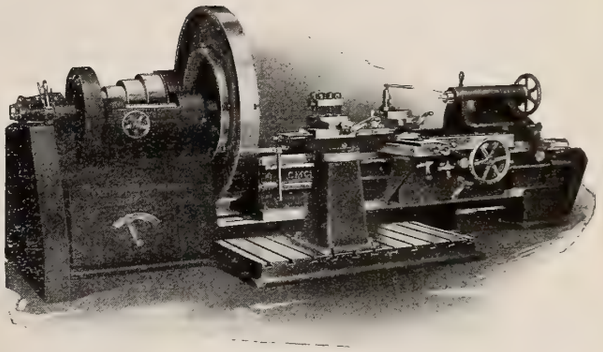
No. 400—Endless Bed Sander



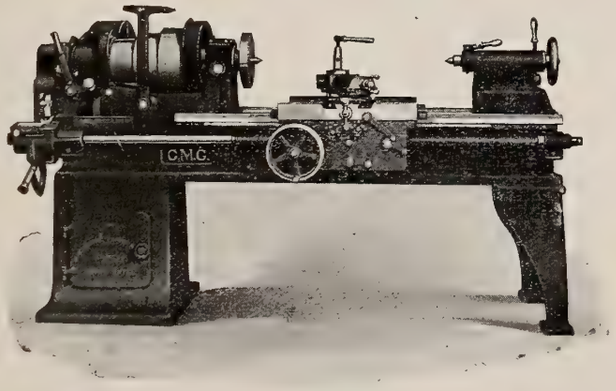
No. 714—36" Band Saw



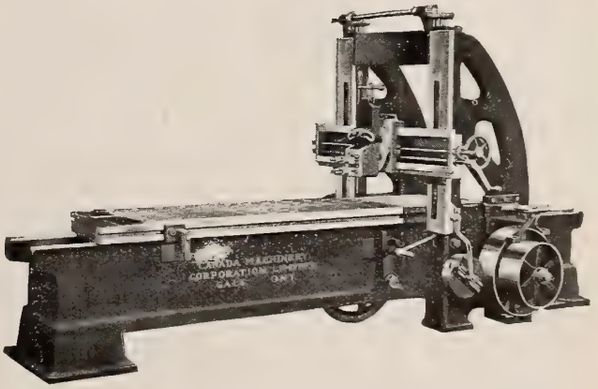
No. 619—Dimension Saw



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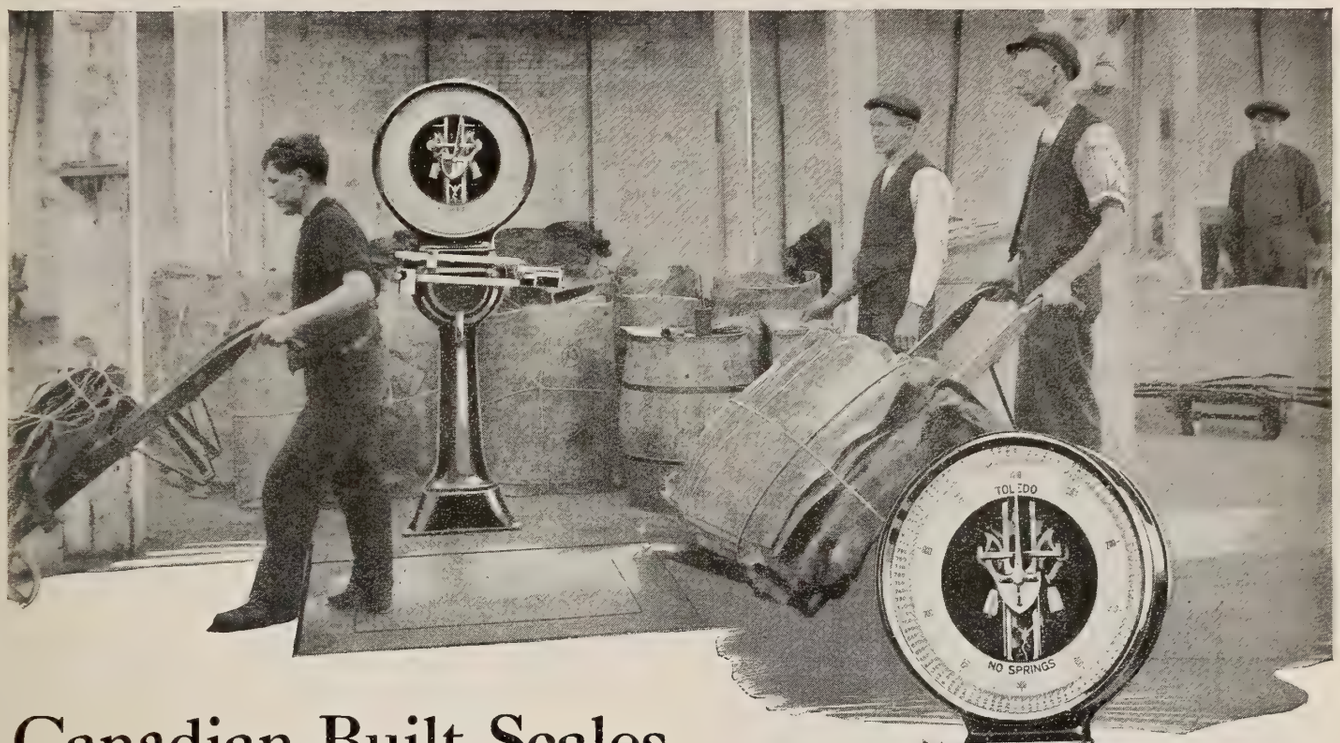
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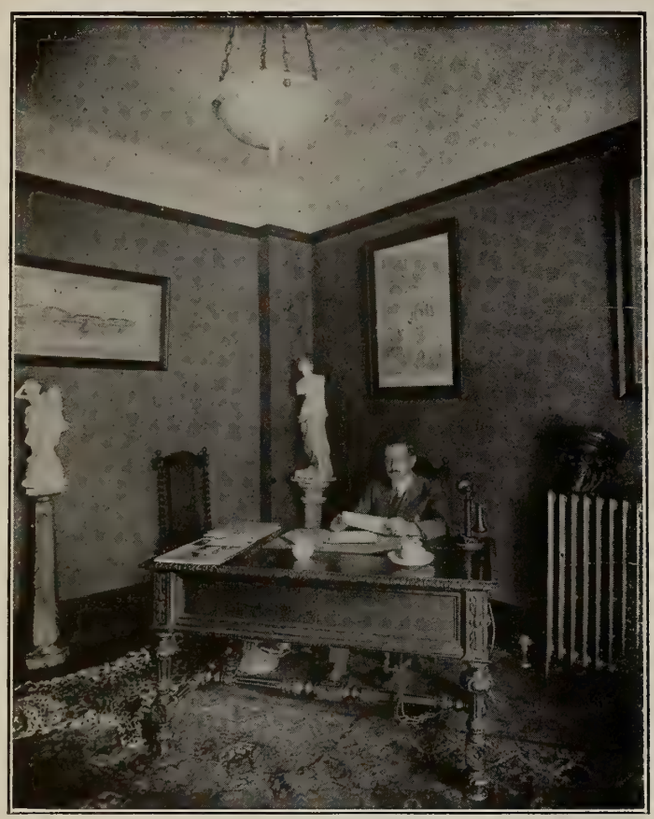


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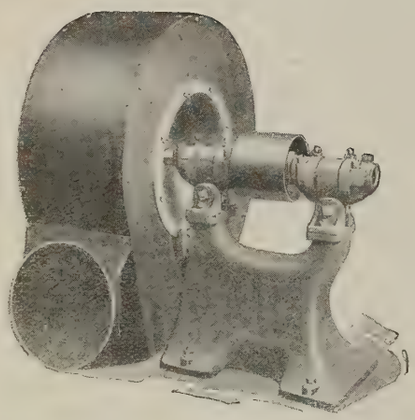
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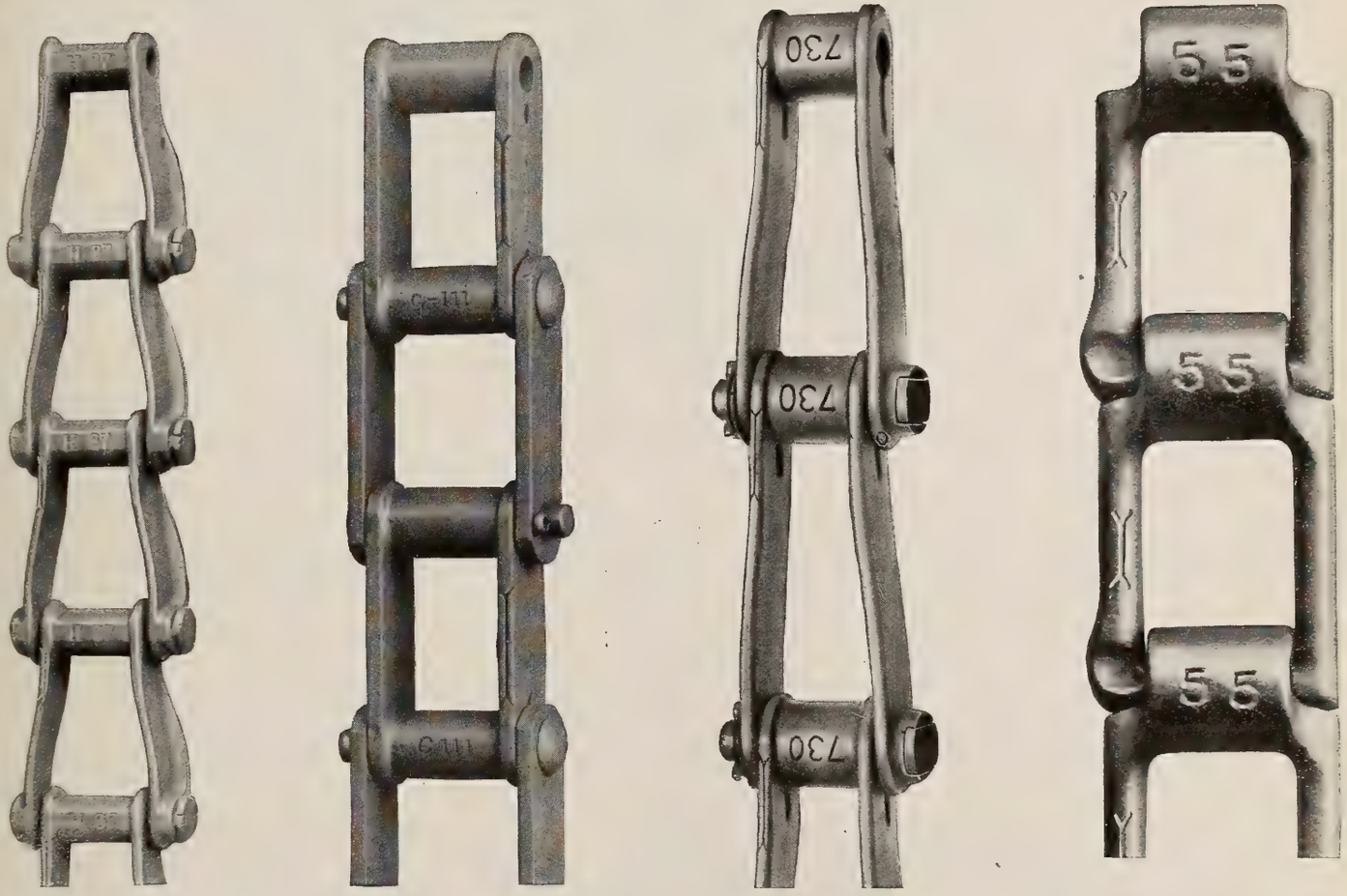
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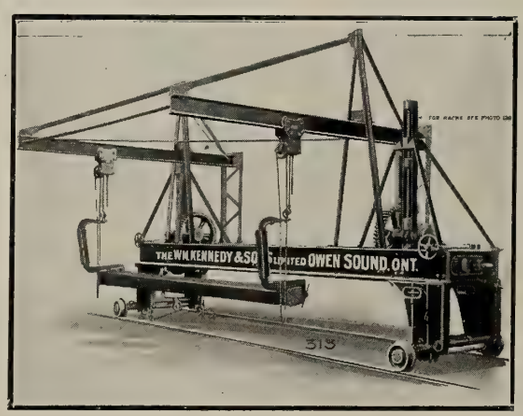
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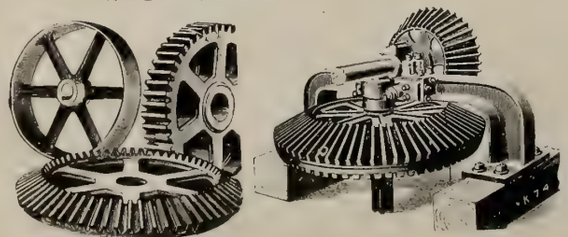


WATER WHEELS



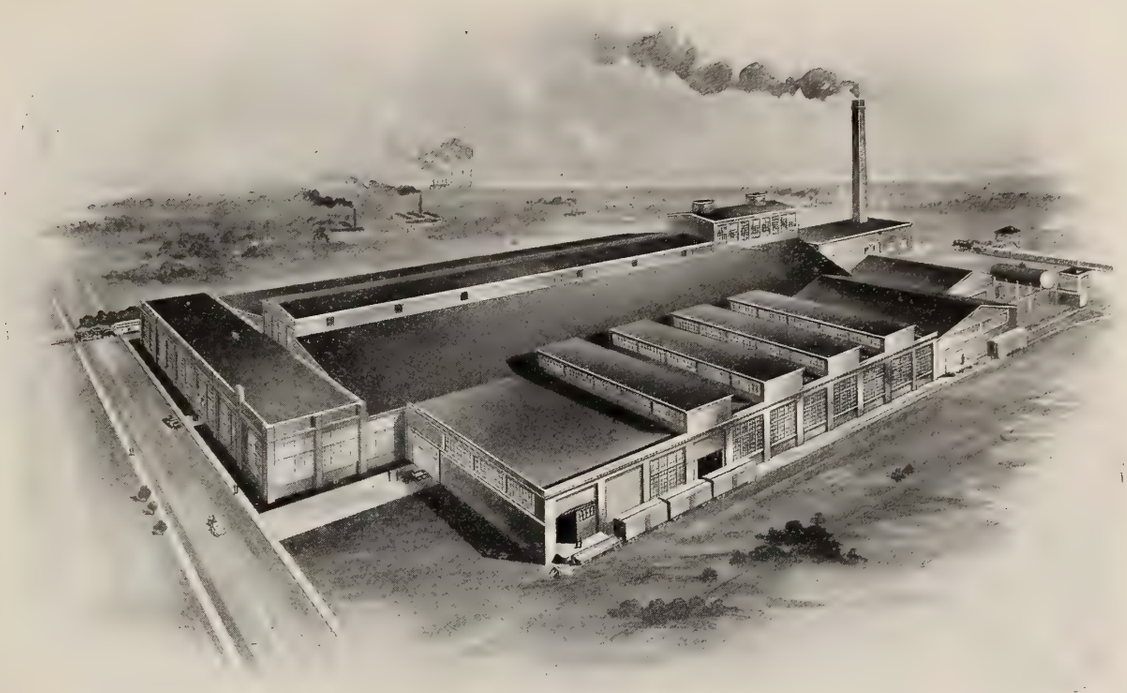
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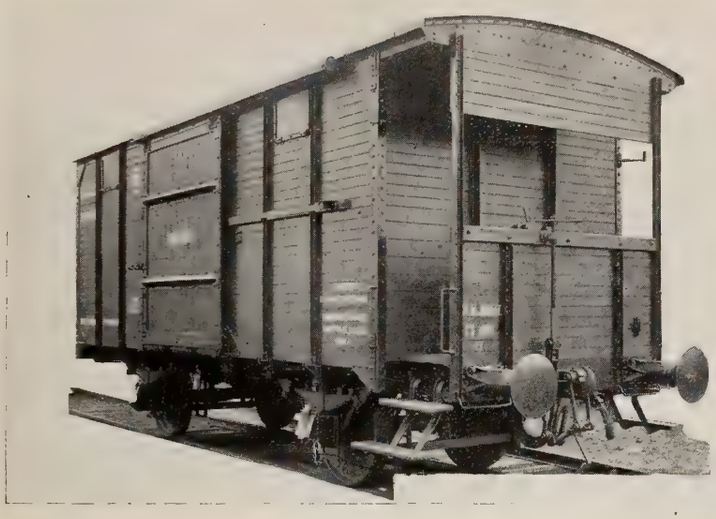
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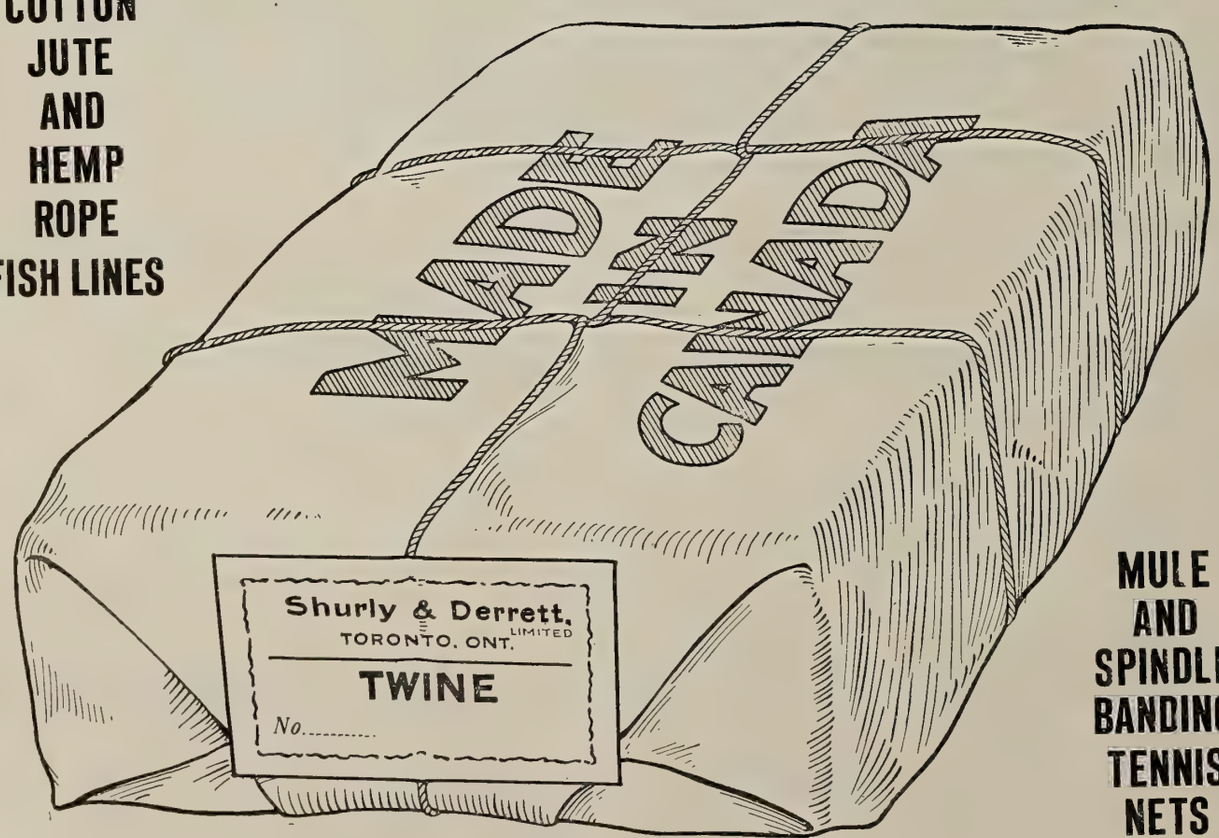
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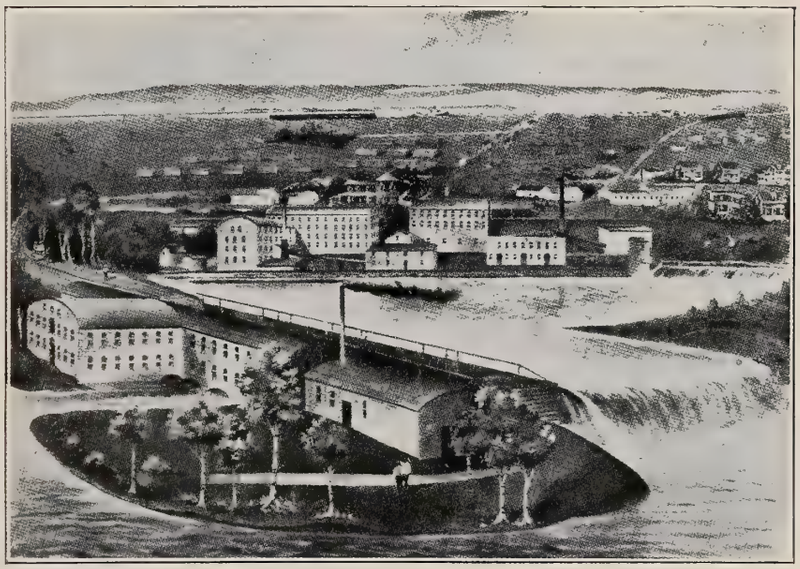
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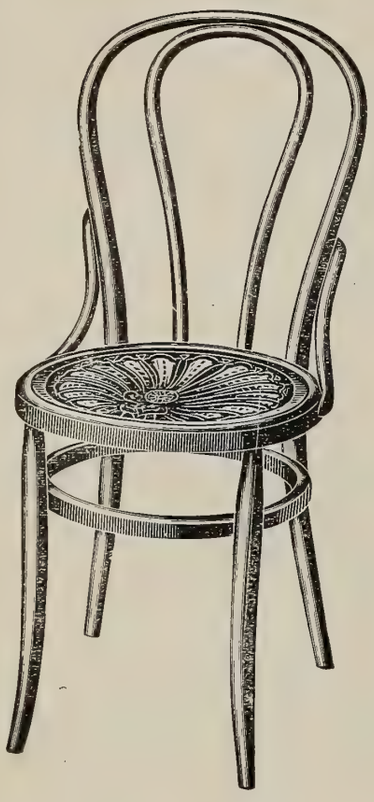
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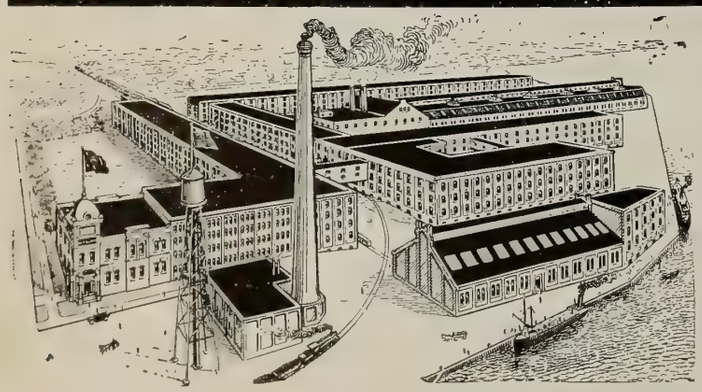
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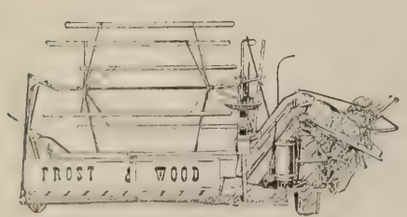
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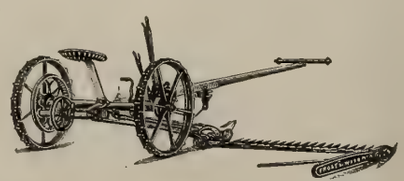
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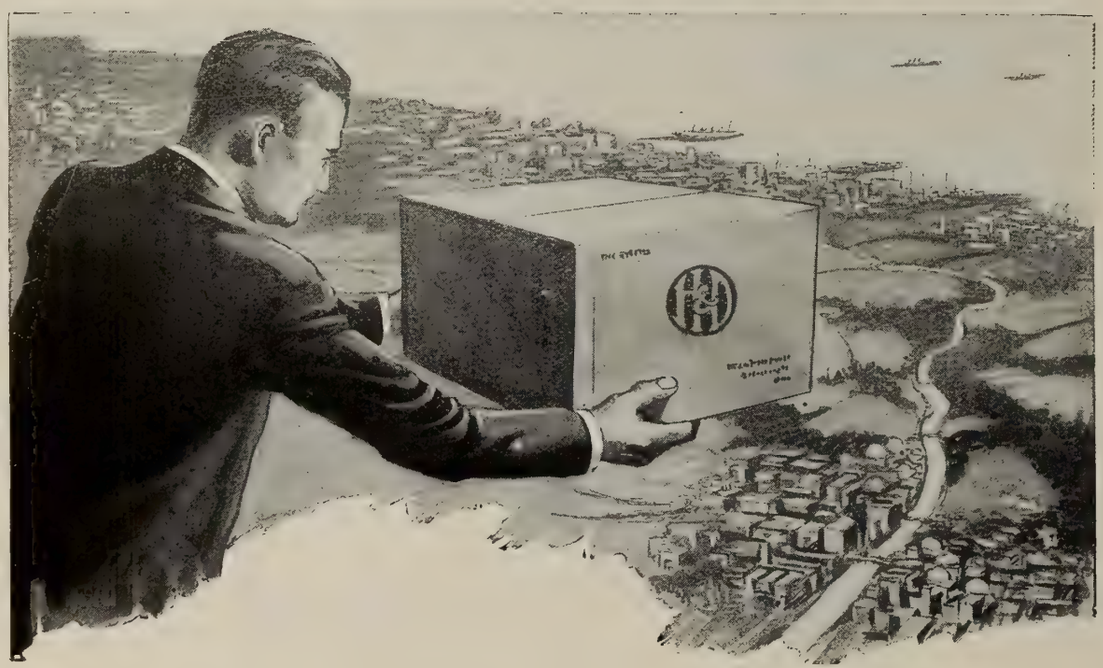
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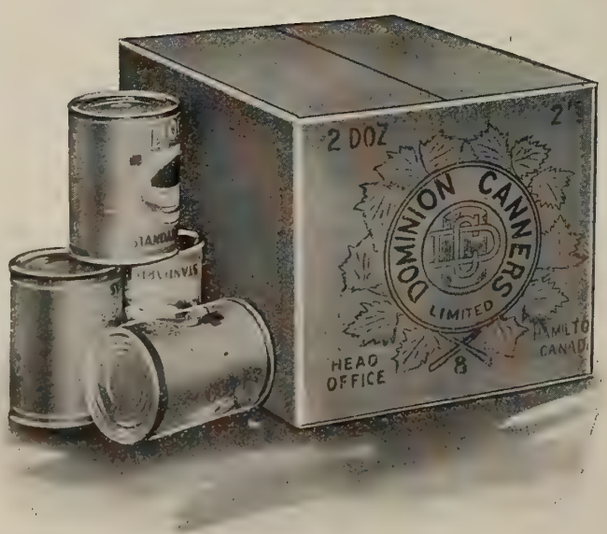
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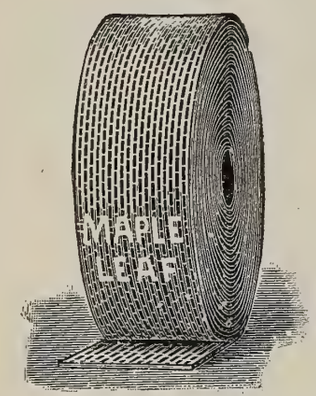
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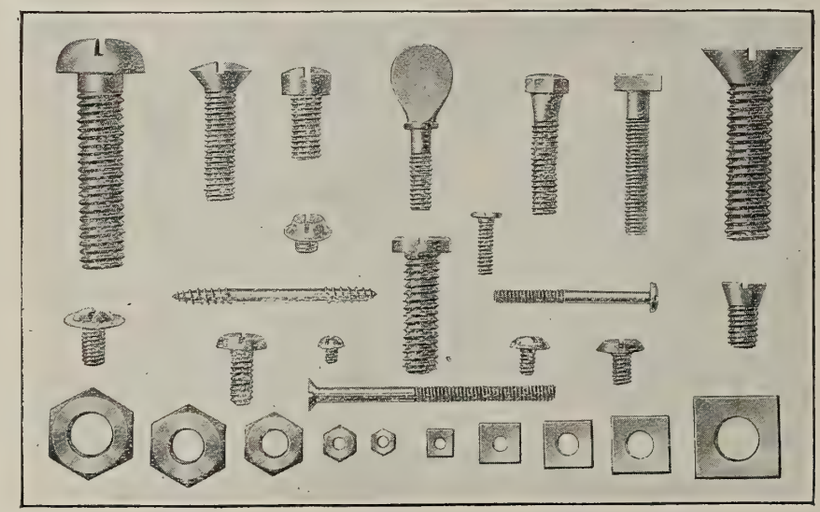
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How Dominion is Coming Through the First Year Since Armistice Signed

Sir Vincent Meredith, President, Points Out Manner in Which Many of the Present Difficulties can be Overcome—Favors More Equitable Distribution of Taxation so as to Cover All Classes Who Are Able to Pay—Sir Frederick Williams-Taylor, General Manager, Draws Attention to Fact That Bank Was Never in a Healthier State, and Deals With Manner in Which Exchange Between Canada and United States Can be Corrected.

The annual meeting of the Bank of Montreal this year proved of very special interest, owing to the important matters dealt with in the addresses of Sir Vincent Meredith, Bart., President, and Sir Frederick Williams-Taylor, General Manager.

During the past year Canada, along with the rest of the world, has been passing through very exceptional conditions, and it is generally recognized that there are very many problems ahead that will have to be carefully worked out. Many of these problems are not confined entirely to Canada, as they relate to the exchange situation between this country and the United States. There is also the difficult undertaking of equitable taxation that must be worked out in Canada, and Sir Vincent Meredith made a suggestion in this connection which is sure to receive very careful consideration.

Sir Frederick Williams-Taylor made an interesting statement in connection with the policy followed by bankers during the war period, showing that there had been absolutely no profiteering whatever by the Banks of Canada, for the price of money had not been raised, and that alone of all commodities, the cost to the borrower of loanable funds of the banking institutions of this country remains unchanged. Sir Frederick also dealt particularly with the position of the Bank of Montreal, and stated that it had never been in a healthier state than at present, and on this account was well prepared to meet any conditions and contingencies that might arise.

The President's Address.

Sir Vincent Meredith, in moving the adoption of the Report of the Directors to the Shareholders, said:—

General trade in practically all branches has been active and profitable during the year and the Bank has participated in the general prosperity. The balance sheet shows profits in moderate proportion to the resources employed and yet, I trust, not unsatisfactory to the Shareholders. That reaction from the feverish activities and high prices produced by the vast conflict which so many apprehended has not occurred, nor can it be said to be impending. The feeling as to the future is less optimistic than it has been, but the great pressure on our agricultural and manufactured resources caused by home and foreign demand shows no sign of abatement.

Though marked by a high degree of prosperity, the year has also been one of world-wide labor unrest, with demands for increased wages and shorter working hours, culminating in strikes and disorder, with resultant decreased efficiency, lessened production and greater cost of output. This unrest may in a measure be attributable to unsatisfactory pre-war conditions, but probably in a greater degree is the result of unsettlement due to the abnormal nervous strain of the great war.

In one important respect, normality has come again—the mercantile sea-going tonnage of the world has been restored to pre-war dimensions and is rapidly being increased, an accomplishment that should soon permit of regularity in the carriage of overseas trade and in a reduction in freight rates and cheapened cost of commodities.

Foreign Trade Well Maintained.

The foreign trade of the Dominion has been well maintained, and the outlook gives no cause for apprehension of an early recession. The latest available figures, those of the seven months ending October 31st, shows imports to have been $543,670,000 and exports $688,890,000. As compared with the corresponding period last year, there was a decline of $16,400,000 in imports and of $31,200,000 in exports, a relatively insignificant decrease while the favorable balance of trade has this year been $145,200.00. The price index of commodities not having materially varied during the periods under review, the deduction may be made that the volume of our foreign commerce has not greatly changed, although the figures of particular products have fluctuated considerably. Thus, the export of foodstuffs was larger in value by $114,200,000 this year than last, in the seven months, and the export of wood and wood products, including paper, $25,800,000 larger. On the other hand, miscellaneous exports, which include munitions, show a decrease of $141,600,000.

Immigration and Production.

There are three indispensable factors to the upbuilding of Canada—immigration, production and exports. Immigration during the last five years has been negligible owing to the war. In the first seven months of the current fiscal year, new arrivals numbered 82,893, of whom 42,377 came from Great Britain and 35,949 from the United States. While these figures do not represent a large movement as compared with several pre-war periods, they show a gain of 51,734 immigrants, or about 166 per cent. over the corresponding months last year. After-the-war emigration of foreign-born has taken place in fairly large volume, the exact figures of which are not obtainable.

There is reason to believe that the policy of the energetic Minister of Immigration will be broad-based, and that its fruits will be manifested in an increasing influx of settlers upon the land, of domestic servants and of artisans and laborers. Indications are already given of a large movement in the spring from the United States into our Western Provinces, attracted by the superior productivity of our soil and its comparative cheapness, and I think we may reasonably hope for a considerable immigration from the countries of our late Allies and from the Scandinavian kingdoms.

Position of National Finances.

The state of the national finances deserves a wider and more profound consideration than the subject appears to receive. The net debt, which before the war was $331,000,000, had on October 31st last reached the vast sum, having regard to population, of $1,785,000,000, an increase of more than five-fold in as many years. The debt is still mounting, and by the close of the current fiscal year, that is to say, on March 31st next, will not be less than two thousand million dollars and probably more. The situation is a serious one, though mitigated by the fact that our debt is largely internal. We cannot go on borrowing indefinitely, and it is a certainty that we shall have to bear a much

heavier burden of taxation than formerly for many years to come. To repeat the formula that has been heard so frequently, but to which, unfortunately, sufficient attention has not been paid, relief is to be found in immigration, harder work, greater efficiency, increased production and thrift. To these agencies must be conjoined rigid economy in all private and public expenditure.

The General Manager's Address.

Sir Frederick Williams-Taylor, General Manager of the Bank, then made his annual address, as follows:

Mr. Chairman and Gentlemen:—The balance sheet to the 30th October last, which I now submit for your approval, covers a round period of twelve months following the armistice.

The economic and financial difficulties that confronted the country during the war have since changed in nature, but have not disappeared by any means. There is an aftermath of problems which Canada must face and in which bankers are vitally concerned. At present there is great activity; yet our national debt grows apace, with attendant ills. Therefore, even with a full measure of faith in our country, I find the near future difficult to visualize. We derive a measure of consolation in comparing our lot with that of countries worse off than our own, but contiguity and ambition direct our eyes towards that country to the south which has benefited so vastly by the war.

It is no reassuring reflection that the United States has already reduced its war debt by some $800,000,000, while we confront an increase of $600,000,000 for the current year. It seems obvious, however, that though fate has treated the two countries differently, any prosperity experienced in the United States must be reflected in Canada. Our true comfort, as well as our pride, is that the Dominion did its duty in the great war as a part of the British Empire. No Canadian would have it otherwise, and therefore we face the cost with stout hearts and the future with watchful serenity.

Turning to the special features in our balance sheet and the points of interest arising therefrom, I might say, first, that the absorption of the Bank of British North America has been so smooth and complete that no ripple appears upon the surface of our affairs. We believe its friends and officers alike feel at home in the Bank of Montreal.

Since presenting the last balance sheet there has been an increase in our capital stock of $4,000,000, with a corresponding increase in Rest Account. Both items now stand at $20,000,000. The increases are primarily in connection with the acquisition of the Bank of British North America.

Shareholders of that Bank were accorded the option of taking cash or exchanging their holdings into Bank of Montreal shares on a determined basis. After the allotments had been made under this arrangement, our own shareholders accepted the opportunity of subscribing for the limited remainder of capital shares to bring the whole up to $20,000,000. Our authorized capital is $28,075,000.

Many of our banking transactions during the post-bellum year under review were unusual in character and of special interest. They need not be described in a report of this nature. It will suffice to say that they have added to the strength and prestige of the Bank.

Problems of Exchange.

The premium on New York funds, the increase in our national debt and in our Canadian currency circulation, are matters of deep interest and should be studied by all.

The purchasing power of the Canadian dollar in the United States has decreased, as reflected in the premium on New York funds. A year ago it cost two dollars to send one hundred dollars to the United States of America; to-day the cost is four dollars and seventy-five cents.

It is true the balance of trade was in favor of Canada to the extent of $340,000,000 for the year ended 31st October last, but whereas we paid for all our purchases abroad, we have, in the same period, shipped goods on credit to England and Continental countries to the extent of many millions not easy to estimate, besides sending out of Canada annually about $200,000,000 interest on our recorded indebtedness abroad, mainly to Great Britain and the United States. These facts alone would not create an adverse exchange to the extent that exists, but, in addition, there are the invisible earnings in the Dominion of foreign business corporations, chiefly American, seeking return to proprietors abroad. The disadvantage Canada is under in respect to the premium on New York funds will last until the ebb and flow of such funds are equal. Repayment to Canada of the moneys, aggregating $420,000,000 owed us by Great Britain and the Allies, would quickly cause the premium in question to disappear. We naturally shall be repaid in the fullness of time, but it is well to bear in mind that an alleviation of the penalty can as surely be found by diminution of imported luxuries as it is certain that the penalty, in part, is caused by such importations. Also, the situation could be relieved by borrowing in the United States, but this course is to be deprecated and would not be a cure, but merely postponement of payments. As indicated by your President, the true remedy lies in increased production and the economy that would be reflected in resumption of those personal sacrifices of pleasure made during the war. It is here in place to remark that in the eyes of Europeans the people of North America are extravagant and wasteful.

Since the outbreak of war, Canada has created fresh domestic credit instruments in the form of bonds of $2,100,000,000. The increase of circulation and of bank deposits followed as a natural sequence.

Our Bank and Government note circulation is now $532,000,000, as compared with $236,000,000 in 1913, an increase of $296,000,000. In the same period the total gold held in Canada has increased $60,000,000.

Your organization is the keystone of your business. Our specialists can tell you how it may be strengthened to secure all the profits you provide for in your estimates

Thorne, Mulholland, Howson & McPherson

INDUSTRIAL ADVISORS

Bank of Hamilton Building Toronto, Ont.

Established 1849

BRADSTREET'S

Capital and Surplus - - $1,500,000

Offices Throughout the Civilized World

Executive Offices: Nos. 346 and 348 BROADWAY, N.Y. CITY, U.S.A.

The Bradstreet Company gathers information that reflects the financial condition and the controlling circumstances of every seeker of mercantile credit. Its business may be defined as of the merchants, by the merchants, for the merchants. In procuring, verifying, and promulgating information, no effort is spared, and no reasonable expense considered too great, that the results may justify its claim as an authority on all matters affecting commercial affairs and mercantile credit. Its offices and connections have been steadily extended, and it furnishes information concerning mercantile persons throughout the civilized world. Subscriptions are based on the service furnished, and are available only by reputable wholesale, jobbing and manufacturing concerns, and by responsible and worthy financial, fiduciary, and business corporations. Specific terms may be obtained by addressing the Company at any of its offices. Correspondence invited.

OFFICES IN CANADA

Edmonton, Alta. Hamilton, Ont. London, Ont.
Halifax, N.S. Ottawa, Ont. Quebec, Que.
Montreal, Que. Toronto, Ont. Vancouver, B.C.
St. John, N.B. Winnipeg, Man. Calgary, Alta. Victoria, B.C. Sydney, N.S.

THOS. C. IRVING, Gen. Man. Western Canada, Toronto

EXPORTERS OF

Reed Organs, Piano Stools, Music Cabinets.

Catalogue B.

The Goderich Organ Co. Limited
GODERICH, CANADA

Closet Seats, Flush Tanks, Medicine Cabinets, Everything for the Bathroom.

Write for Catalogue C and Price List.

THE ROYAL BANK OF CANADA

INCORPORATED 1869

HEAD OFFICE . . . MONTREAL

Capital Authorized $25,000,000 **Reserve Funds $18,000,000**

Capital Paid-Up $17,000,000 **Total Assets $533,647,000**

BOARD OF DIRECTORS

SIR HERBERT S. HOLT, President — E. L. PEASE, Vice-Pres. and Managing Director

JAS. REDMOND, G. R. CROWE, D. K. ELLIOTT, HON. W. H. THORNE, HUGH PATON
A. J. BROWN, K.C., W. J. SHEPPARD, C. S. WILCOX, A. E. DYMENT, C. E. NEILL
SIR MORTIMER B. DAVIS, G. H. DUGGAN, C. C. BLACKADAR, JOHN T. ROSS, R. MacD. PATERSON
W. H. McWILLIAMS, CAPT. WM. ROBINSON, A. McTAVISH CAMPBELL, ROBERT ADAIR

E. L. PEASE, Managing Director — C. E. NEILL, General Manager

M. W. WILSON, Supt. of Branches

Statement to the Dominion Government (Condensed) Showing Condition of the Bank On November 29, 1919

LIABILITIES

Capital Paid Up	$ 17,000,000.00
Reserve Fund	17,000,000.00
Undivided Profits	1,096,418.74
Dividend No. 129, payable December 1, 1919	505,219.12
Fiftieth Anniversary Bonus of 2 per cent. to shareholders payable December 20, 1919	340,000.00
Notes in Circulation	39,837,265.74
Deposits	433,129,602 45
Due to other Banks	7,463,823.30
Bills Payable (Acceptances by London Branch)	806,776.89
Acceptances under Letters of Credit	16,467,978.69
	$533,647,084.93

ASSETS

Cash on hand and in Banks	$101,021,464.54
Deposit in the Central Gold Reserves	24,500,000.00
Government and Municipal Securities	78,724,141.43
Railway and other Bonds, Debentures and Stocks	19,414,891.06
Call Loans in Canada	16,435,614.30
Call Loans elsewhere than in Canada	33,812,751.53
	$273,908,862.86
Loans and Discounts	$233,945,652.67
Liabilities of Customers under Letters of Credit as per contra	16,467,978.69
Bank Premises	7,016,444.12
Real Estate other than Bank Premises	1,495,271.00
Mortgages on Real Estate sold by the Bank	62,875.59
Deposit with Dominion Government for Security of Note Circulation	750,000.00
	$533,647,084.93

630 Branches

556 BRANCHES IN CANADA AND NEWFOUNDLAND

215 in Ontario and Quebec — 101 in Maritime Provinces
182 in Central West — 49 in British Columbia
9 Branches in Newfoundland

70 BRANCHES IN WEST INDIES, CENTRAL AND SOUTH AMERICA

3 in Argentine, Brazil and Uruguay
33 in Cuba — 13 in British West Indies
4 in Porto Rico and Haiti — 3 in British Guiana
5 in Dominican Republic — 1 in British Honduras
4 in Venezuela — 1 in Costa Rica — 3 in French West Indies

BARCELONA, SPAIN
Plaza de Cataluna 6

NEW YORK OFFICE 68 William St.

LONDON OFFICE Princes St., E.C.

PARIS OFFICE
THE ROYAL BANK OF CANADA (FRANCE)
28 Rue du Quatre-Septembre

COLLECTIONS on points in Canada, Cuba, West Indies, Central and South America, etc., handled promptly and on favorable terms.

COLLECTIONS

throughout CANADA, NEWFOUNDLAND, the WEST INDIES, CENTRAL and SOUTH AMERICA handled promptly and on favorable terms

A General Banking Business Transacted

The Great Sea-Lanes of the Pacific

Connect Canada with the Growing Markets of the Orient

THE Canadian Bank of Commerce has branches in all the principal ports of the Pacific Coast both in Canada and the United States. It also has connections with the leading banks in countries bordering on the Pacific Ocean, including Japan, China, Australia, New Zealand and the Straits Settlements.

This Bank thus offers to exporters and importers unique opportunity for the convenient transaction of international business.

THE CANADIAN BANK OF COMMERCE

HEAD OFFICE, TORONTO, CANADA

PAID UP CAPITAL, $15,000,000 RESERVE FUND, $15,000,000 TOTAL ASSETS, $479,644,000

ESTABLISHED 1867 513 BRANCHES

BANK OF HAMILTON

HEAD OFFICE: HAMILTON

Capital Paid Up November 30, 1919, $3,991,780 Reserve and Undivided Profits November 30, 1919, $4,081,000

BOARD OF DIRECTORS

SIR JOHN HENDRIE, K.C.M.G., C.V.O., President — CYRUS A. BIRGE, Vice-President
C. C. DALTON — ROBT. HOBSON — W. E. PHIN
I. PITBLADO, K.C. — J. TURNBULL — W. A. WOOD

Record of Progress—Statement to the Dominion Government (Condensed) on Nov. 30th

ASSETS	1918	1919
Cash on hand and in banks, etc.	$14,068,390	$13,634,872
Call Loans	3,319,492	11,523,310
Government Bonds, Debentures and Investments	13,241,618	16,848,244
Loans to Municipalities	1,343,323	2,067,677
Other Loans and Discounts	45,826,108	44,918.442
Premises, Real Estate, Mortgages and other Assets	3,490,442	3.372,163
Liabilities to Customers under Letters of Credit as per Contra	149,147	232,637
	$81,438,520	$92,597,345
LIABILITIES		
Circulation	$ 6,157,701	$ 6,610,921
Government Balances	12,790,654	11,225,177
Bank Balances	946,734	1,484,488
Deposits	54,861,862	64,971,337
Acceptances under Letters of Credit, as per Contra	149,147	232,637
To the Shareholders		
Capital Paid Up	3,000,000	3,991,780
Reserve Fund and Surplus Profits	3,532,422	4,081,005
	$81,438,520	$92,597,345

J. P. BELL, General Manager

IMPERIAL BANK
OF CANADA

Capital Paid Up - $7,000,000 Reserve Fund - $7,500,000
Total Assets over - $128,000,000

CANADA'S TRADE

THE importance of Canada's export trade is no longer a matter of conjecture. It is firmly established and rapidly developing, and the foreign market is wide open to the products of Canadian manufacture.

This Bank gives service of the highest order and offers every facility to Canadian manufacturers in conducting financial transactions throughout the world. Those contemplating an expansion of their export trade will appreciate the connection offered by Imperial Bank of Canada.

AGENTS IN GREAT BRITAIN

ENGLAND—Lloyd's Bank Limited, London and Branches
SCOTLAND—The Commercial Bank of Scotland, Edinburgh and Branches
IRELAND—The Bank of Ireland, Dublin and Branches

AGENTS IN THE UNITED STATES

NEW YORK—The Bank of the Manhattan Company
CHICAGO—First National Bank
BUFFALO—Bank of Buffalo
DETROIT—First and Old Detroit National Bank
SAN FRANCISCO—Wells Fargo Nevada National Bank and in all other principal centres

AGENTS IN FRANCE

Lloyd's Bank (France) and the National Provincial Bank (France) Limited

Head Office - Toronto

The Canadian Appraisal Company

Limited

IN view of the continued high prices of all commodities, we take occasion to remind our clients of the extent to which these have affected the cost of buildings, machinery and equipment. Full consideration must be given to these conditions, if adequate Insurance is to be provided, an adverse operation of the Co-Insurance Clause is to be avoided, and a satisfactory adjustment is to be assured in the event of fire.

Buildings erected only a few years ago, if kept in a high state of repair, may very possibly to-day be worth double their original cost. **This increased value is insurable, and indeed must be insured.** A bitter experience awaits the manufacturer who has not considered this necessity, and who may have to undertake to rebuild after a fire.

To guess at values when insuring is obviously bad business, and will most probably lead to an unsatisfactory adjustment. A leading Insurance Company states: "It is a fact that 85% of manufacturers do not carry enough fire insurance as compared with their present valuations."

An appraisal on the basis of to-day's costs of labor and material is the only sound solution of the difficulty and the most economic in the long run. Values so arrived at are provable and establish a foundation for correct methods of Insurance.

Correspondence Invited

Head Office: 17 St. John Street, Montreal

TORONTO
Royal Bank Building

NEW YORK
Equitable Building

THE MERCHANTS BANK OF CANADA

Established 1864

HEAD OFFICE - MONTREAL

Capital Paid-Up - - - - - - - $7,000,000
Reserve Fund and Undivided Profits - $7,574,043

State of Liabilities and Assets at 31st October, 1919

LIABILITIES

	1919.	1918.
Capital Paid Up	$ 8,341,535 30	$ 7,000,000 00
Reserve Fund	7,000,000 00	7,000,000 00
Undivided Profits	574,043 32	437,973 92
Notes in Circulation	15,827,373 00	15,180,243 00
Deposits	164,302,874 18	133,955,901 26
Due to Other Banks	1,703,141 06	1,932,303 36
Acceptance under Letters of Credit	757,606 04	418,006 30
	$198,506,572 90	$165,924,436 84

ASSETS

Cash on hand and in Banks	$ 25,642,136 33	$ 20,641,022 76
Deposit in the Central Gold Reserve	8,000,000 00	8,500,000 00
Government and Municipal Securities	36,240,352 41	31,558,108 80
Railway and other Bonds, Debentures and Stock	3,870,611 91	3,933,373 19
Call Loans in Canada	6,843,017 57	4,916,574 22
Call Loans elsewhere than in Canada	3,418,846 99	2,899,198 62
	$ 84,014,965 21	$ 72,448,277 59
Loans and Discounts	106,254,280 80	86,818,802 28
Liabilities of Customers under Letters of Credit per contra	757,606 04	418,006 30
Bank Premises	5,663,251 73	5,218,862 63
Real Estate other than Bank Premises	911,291 19	333,872 24
Mortgages on Real Estate sold by the Bank	528,177 93	320,615 80
Deposit with Dominion Government for purposes of Circulation Fund	377,000 00	366,000 00
	$198,506,572 90	$165,924,436 84

SIR H. MONTAGU ALLAN, C.V.O. ..... *President.*
K. W. BLACKWELL ..... *Vice-President.*
D. C. MACAROW ..... *General Manager.*
T. E. MERRETT .. *Supt. of Branches and Chief Inspector.*

NEW YORK AGENCY, 63-65 Wall Street

Bankers in Great Britain { The London Joint City and Midland Bank, Limited
The Royal Bank of Scotland

LONDON, ENGLAND, OFFICE—53 Cornhill
Lt.-Col. J. B. Donnelly, D.S.O., Manager

A GENERAL BANKING BUSINESS TRANSACTED
and
SAVINGS DEPARTMENT IN ALL BRANCHES

Deposits received and interest allowed at best current rates

Tokyo

Japan's increasing foreign trade is characteristic of the intelligence and energy of the nation.

Canada's trade with that picturesque country has increased rapidly and continues to expand.

Tokyo, the capital of Japan, home of the Mikado, is in touch with every corner of the Japanese Empire. Thus Canadians having trade relations with the Japanese, will find the Tokyo branch of the Park-Union Banking Corporation of far-reaching service.



UNION BANK OF CANADA

Park-Union Foreign Banking Corporation jointly owned and controlled by National Park Bank of New York and Union Bank of Canada. 405

DAVIS & HENDERSON

LIMITED

Manufacturing Stationers

LITHOGRAPHERS EMBOSSERS

ENVELOPE MAKERS

PRINTERS

LOOSE LEAF AND ACCOUNT BOOK MANUFACTURERS

578-580 King Street West

TORONTO

The Merchants Bank of Canada

Head Office, MONTREAL **Established 1864**

Capital Paid-up	$ 7,000,000
Reserve Funds	7,574,043
Total Deposits (October 31st, 1919)	165,000,000
Total Assets (October 31st, 1919)	198,000,000

President: Sir H. Montagu Allan, C.V.O.
Vice-President: K. W. Blackwell
General Manager: D. C. Macarow
Supt. of Branches and Chief Inspector: T. E. Merrett

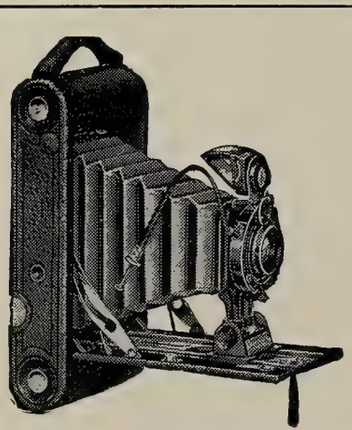
Merchants and Manufacturers

are cordially invited to discuss all matters of finance with us.

The Merchants Bank is more than a mere depository—it is an Institution that stands ever ready to advise and assist its customers in regard to money matters, investments and business generally.

364 Branches and Agencies in Canada Extending from the Atlantic to the Pacific.

MADE IN CANADA



2c Autographic Kodak, Jr.

Simplicity emphasized.
The picture size is 2⅞x4⅞ inches.
The price, with Rapid Rectilinear Lens and Kodak Ball Bearing Shutter, is $23.00

CANADIAN KODAK CO., Limited
Toronto, Canada

The Royal Bank of Canada

GENERAL STATEMENT

29th NOVEMBER, 1919

LIABILITIES

TO THE PUBLIC:		
Deposits not bearing interest	$159,656,229 68	
Deposits bearing interest, including interest accrued to date of statement	259,465,169 69	
		$419,121,399 37
Notes of the Bank in Circulation		39,837,265 74
Balance due to Dominion Government		14,000,000 00
Balances due to other Banks in Canada	$13,970 88	
Balances due to Banks and Banking Correspondents in the United Kingdom and foreign countries	7,449,852 42	
		7,463,823 30
Bills Payable		806,776 89
Acceptances under Letters of Credit		16,467,978 69
		$497,697,243 99
TO THE SHAREHOLDERS:		
Capital Stock Paid up		17,000,000 00
Reserve Fund	$17,000,000 00	
Balance of Profits carried forward	1,096,418 74	
		18,096,418 74
Dividends Unclaimed	8,203 08	
Dividend No. 129 (at 12 per cent. per annum), payable December 1st, 1919	505,219 12	
Fiftieth Anniversary Bonus of 2%, payable December 20th, 1919	340,000 00	
		853,422 20
		$533,647,084 93

ASSETS

Current Coin	$17,653,879 92	
Dominion Notes	26,735,724 00	
United States Currency	8,746,805 00	
Other Foreign Money	2,545,138 41	
	$55,681,547 33	
Deposit in the Central Gold Reserves	24,500,000 00	
Notes of other Banks	3,464,200 00	
Cheques on other Banks	23,757,240 33	
Balances due by other Banks in Canada	17,103 80	
Balances due by Banks and Banking Correspondents elsewhere than in Canada	18,101,373 08	
Dominion and Provincial Government Securities, not exceeding market value	45,323,598 66	
Canadian Municipal Securities and British, Foreign and Colonial Public Securities other than Canadian, not exceeding market value	33,400,542 77	
Railway and other Bonds, Debentures and Stocks, not exceeding market value	19,414,891 06	
Call Loans in Canada, on Bonds, Debentures and Stocks	16,435,614 30	
Call and Short (not exceeding thirty days) Loans elsewhere than in Canada	33,812,751 53	
		$273,908,862 86
Other Current Loans and Discounts in Canada (less rebate of interest)	$143,259,518 47	
Other Current Loans and Discounts elsewhere than in Canada (less rebate of interest)	90,210,271 33	
Overdue Debts (estimated loss provided for)	365,089 66	
		$233,834,879 46
Real Estate other than Bank Premises		1,495,271 00
Bank Premises, at not more than cost, less amounts written off		7,016,444 12
Liabilities of Customers under Letters of Credit, as per contra		16,467,978 69
Deposit with the Minister for the purposes of the Circulation Fund		750,000 00
Other Assets not included in the foregoing		173,648 80
		$533,647,084 93

H. S. HOLT, President. EDSON L. PEASE, Managing Director. C. E. NEILL. General Manager.

AUDITORS' CERTIFICATE

WE REPORT TO THE SHAREHOLDERS OF THE ROYAL BANK OF CANADA:

That in our opinion the transactions of the Bank which have come under our notice have been within the powers of the Bank.

That we have checked the cash and verified the securities of the Bank at the Chief Office at 29th November, 1919, as well as at another time, as required by Section 56 of the Bank Act and that we found they agreed with the entries in the books in regard thereto. We also during the year checked the cash and verified the securities at the principal branches.

That the above Balance Sheet has been compared by us with the books at the Chief Office and with the certified returns from the Branches, and in our opinion is properly drawn up so as to exhibit a true and correct view of the state of the Bank's affairs according to the best of our information and the explanations given to us and as shown by the books of the Bank.

That we have obtained all the information and explanations required by us.

JAMES MARWICK, C.A.
S. ROGER MITCHELL, C.A., of Marwick, Mitchell, Peat and Co.
JOHN W. ROSS, C.A., of P. S. Ross & Sons.
} Auditors.

Montreal, Canada, 18th December, 1919.

PROFIT AND LOSS ACCOUNT

Balance of Profit and Loss Account, 30th November, 1918	$535,757 19	
Profits for the year, after deducting charges of management and all other expenses, accrued interest on deposits, full provision for all bad and doubtful debts and rebate of interest on unmatured bills	3,423,264 34	
		$3,959,021 53
APPROPRIATED AS FOLLOWS:		
Dividends Nos. 126, 127, 128 and 129 at 12 per cent. per annum	$1,866,196 50	
Fiftieth Anniversary Bonus of 2 per cent. to Shareholders	340,000 00	
Transferred to Officers' Pension Fund	100,000 00	
Written off Bank Premises Account	400,000 00	
War Tax on Bank Note Circulation	156,406 29	
Balance of Profit and Loss carried forward	1,096,418 74	
		$3,959,021 53

RESERVE FUND

Balance at Credit, 30th November, 1918	$15,000,000 00	
Premium on New Capital Stock	2,000,000 00	
Balance at Credit 29th November, 1919		$17,000,000 00

H. S. HOLT, President. EDSON L. PEASE, Managing Director. C. E. NEILL General Manager.

Montreal, 18th December, 1919.

TRADE W.G.R. MARK

Makers for many years of fine

SHIRTS, COLLARS, PYJAMAS, BOYS'

BLOUSES and SUMMER UNDERWEAR

The Originators and Sole Makers of the famous

DOUBLE WEAR CUFFS

Patented *1918*

"The Cuff that doubles the life of the shirt."

with which all our soft cuff shirts are made.

The Williams, Greene & Rome Co.

LIMITED

FACTORY AND HEAD OFFICE AT KITCHENER

Branches at—Montreal Winnipeg Toronto Vancouver

BLACK DONALD

CALABOGIE



GRAPHITE MINES

ONTARIO

The above illustration is from a photograph of a stope in the famous Black Donald Graphite Mines. The vein in the present workings stands 125 feet high and 75 feet wide. In the point of magnitude and richness it stands in a class by itself. It is the largest and richest vein of high grade Crystalline Flake Graphite so far uncovered on the American continent.

NATURE'S SIMON PURE
MADE IN CANADA
GRAPHITE

Stored away hundreds of thousands of years before old Father Adam played his memorable role and passed on.

BLACK DONALD GRAPHITE is especially refined by us for the following purposes—

LUBRICATION

Lubricating Flake Graphite prepared in three sizes of Flake to meet any and all lubricating requirements. It is especially adapted to the perfect lubrication of locomotive mechanisms of every character including motor cars and motor boats, stationary gas engines, cylinders, air compressors, light and close fitting bearings, gears, pistons, etc. Black Donald Flake entirely eliminates all friction and consequent wear of bearing parts.

BOILER SCALE ELIMINATION

Boiler Graphite works through the minute fissures in the old scale and by gradually penetrating between the scale and the metal makes the scale easily removed by either rapping or using regular cleaning tools; and once removed, new scale cannot adhere to the metal so long as the treatment is continued.

If your Jobber or Retailer is not in a position to supply your requirements communicate with us direct

BLACK DONALD GRAPHITE COMPANY LIMITED

CALABOGIE - ONTARIO - CANADA

The building shown below is the Graphite Refinery that made Canadian Flake Graphite famous throughout the length and breadth of the American continent, through having successfully worked out the baffling problem of refining high grade Flake Graphite and living up to the reputation established.



GOODYEAR
MADE IN CANADA

EXTRA POWER BELTING

You can find no safer guide in selecting your belting equipment than the experience of others.

In over one thousand of Canada's plants Goodyear Extra Power Belting is being used with marked success. Scores of these have written us telling of their experience with Extra Power Belting.

Read this letter from The Dominion Steel Products Co., Limited, of Brantford, a concern noted for its progressive methods. It tells of a belting experience which must impress you.

Price was a minor factor with Dominion Steel Product, but on this alone they made a saving of $4,000.

Length of service, general efficiency, continuous operation and power saving were the determining factors in their decision to use only Extra Power Belting in their plant.

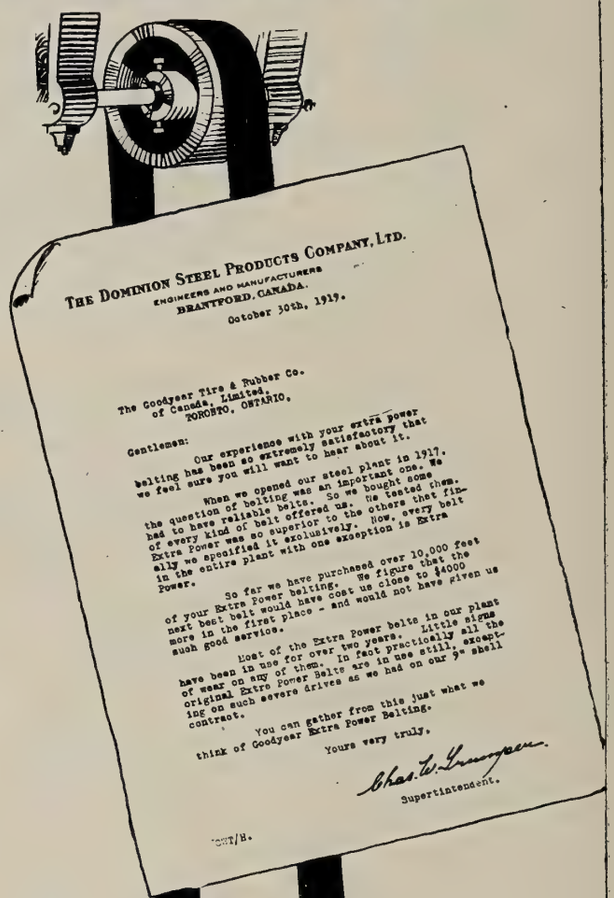
It may be that your plant is much smaller; that your saving would only be $400, but even this plus the greater efficiency of Extra Power Belting is too important for you to disregard.

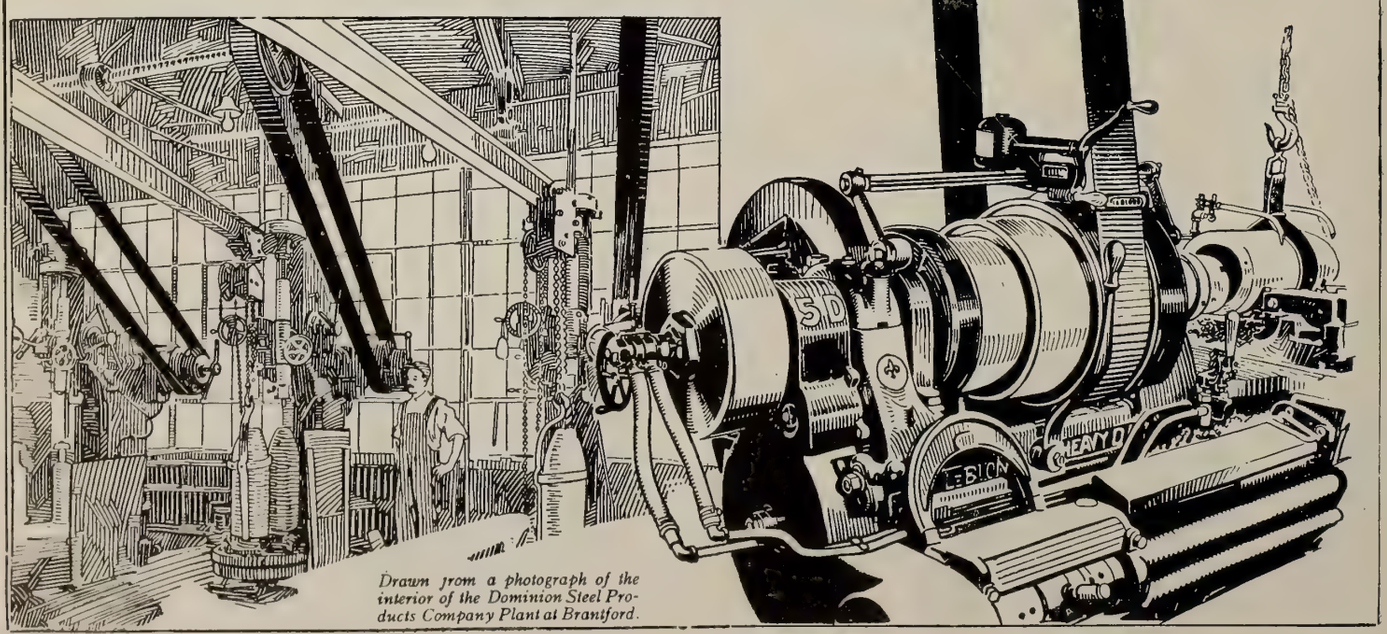
You can easily prove to your own satisfaction that Extra Power would serve you as faithfully as it has the Dominion Steel Products Co.

Phone, wire or write our nearest branch, so that a man carefully trained in belting problems by Goodyear may call on you and present further evidence of the superiority of Extra Power Belting. No obligation other than fair investigation.

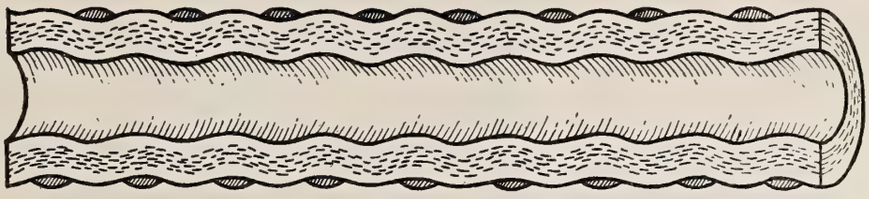
THE GOODYEAR TIRE & RUBBER CO. OF CANADA, LIMITED

Branches—Halifax, St. John, Quebec, Montreal, Ottawa, Toronto, Hamilton, London, Winnipeg, Regina, Saskatoon, Edmonton, Calgary, Vancouver. Service Stocks in smaller cities.

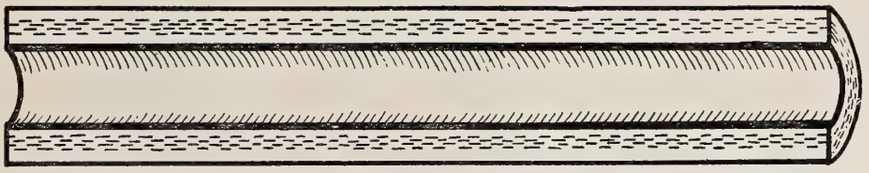




Drawn from a photograph of the interior of the Dominion Steel Products Company Plant at Brantford.



SECTION OF STEAM HOSE SHOWING THE EFFECTS OF WIRE-WINDING UNDER PRESSURE.



SECTION OF GOODYEAR STEAM HOSE UNDER THE SAME PRESSURE.

Goodyear has made Wire-Winding on Steam Hose Unnecessary

THAT the expansion of steam in steam hose had to be controlled by wire-winding has been long taken for granted by industry. Of course, the wire became bent and the hose choked up; it became too hot to handle; it was inconvenient to cut into shorter lengths; the wire cut through the cover. But it had always been so. And wire-winding seemed essential to protect hose from rough usage and from pressure bursts.

The illustration shows what wire-winding does to steam hose. Under the heat and pressure of use, the hose expands faster than the wire. Bulges and blisters form. The tube cracks and the fabric is weakened.

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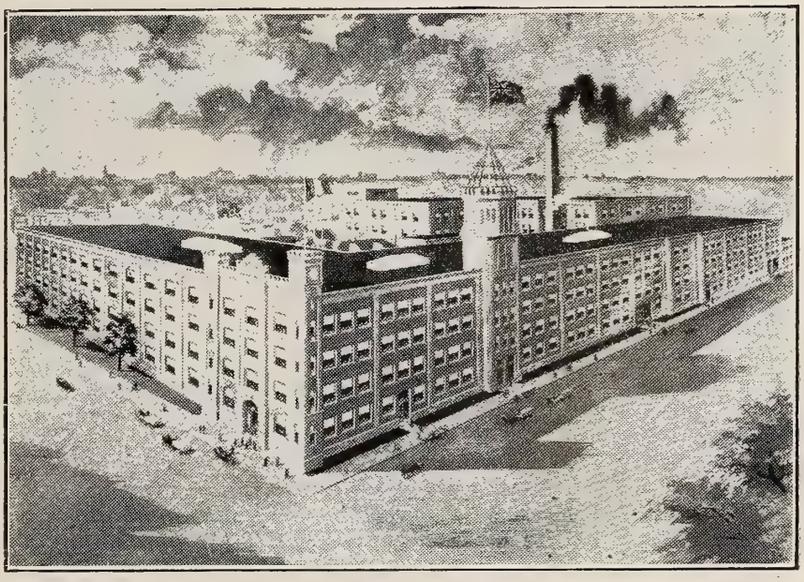
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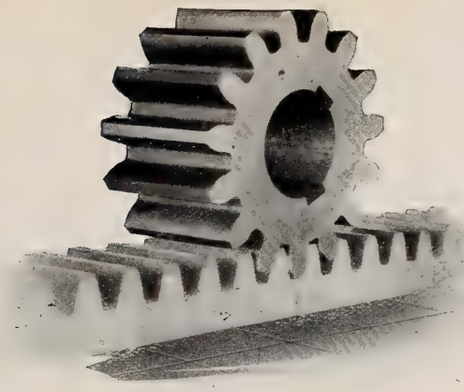
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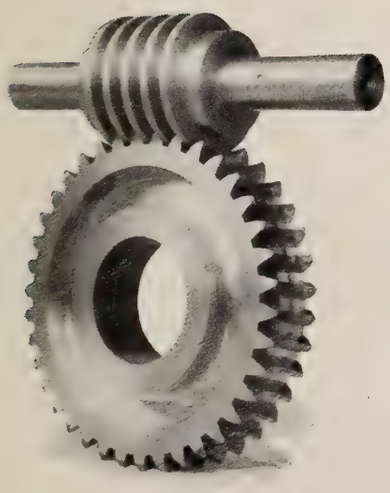
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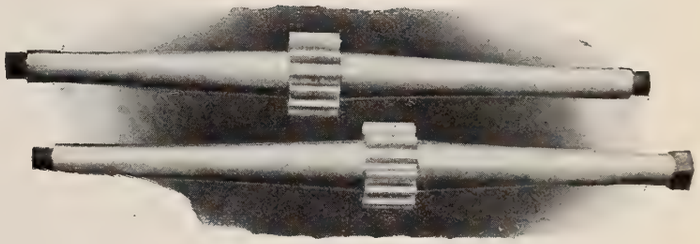


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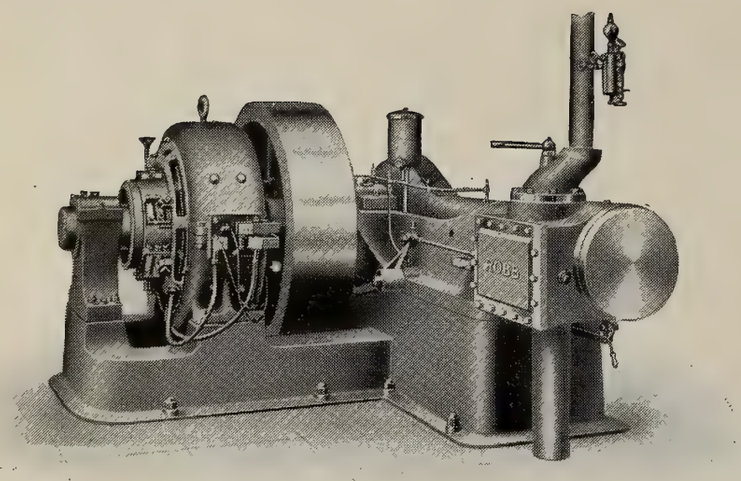


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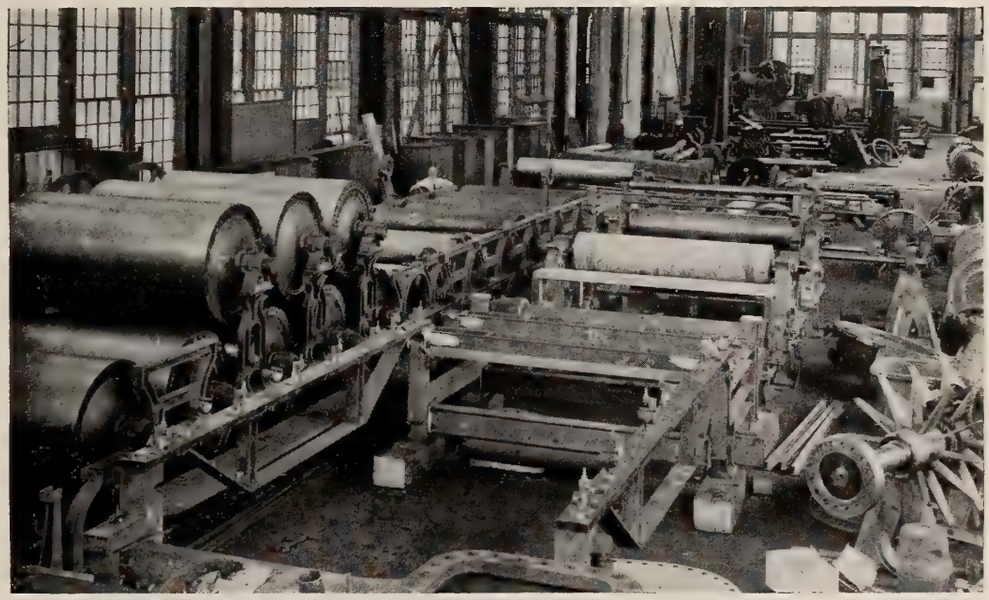
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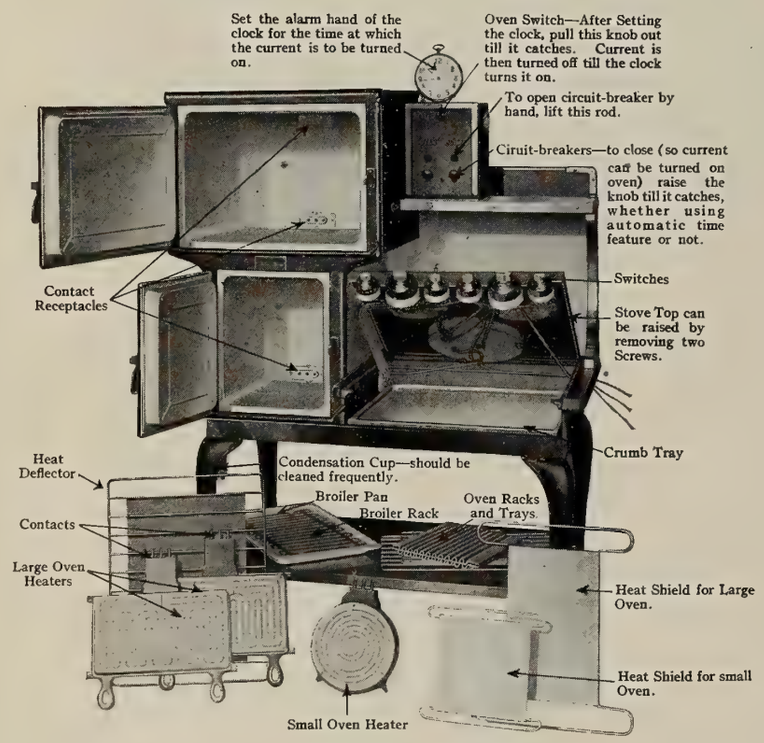
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Vol. XX. TORONTO, JANUARY, 1920 No. 9

Editorial Comment

Canadian Industry in 1919

DURING 1919 Canadian industry passed through one of its most critical periods. On the signing of the Armistice in 1918, the manufacture of war material ceased overnight. Almost immediately demobilization of the Canadian Army began, and thousands of men every month were discharged into civilian life. Canadian manufacturers faced a threefold problem: First to re-adjust their plants from a war to a peace basis; second, to replace as far as possible temporary civilian employees by returned soldiers, and, third, to seek new markets or to revive old markets for the sale of goods in order to make the first and second operations financially possible. In other words, they had to change all round and still keep going ahead. Looking back over the past year, we do not quite know how it was done, but the thing was done, and with little check to industry on the whole. Perhaps the human agency after all had not a great deal to do with this happy result. Peculiar economic conditions furnished the greater part of the solution. Astonishing demands from Europe for all kinds of manufactured goods speedily developed. Consequently, our export trade did not suffer as much as might have been expected. At the same time, domestic demands for articles which could not be secured during the war, revived. In other words, the wants of peace in many lines had not been satisfied for nearly five years. These two conditions produced a strong and steady market for nearly all kinds of manufactured articles, and united in the task of stabilizing industry through the most trying period it has ever experienced in Canadian history.

Judge Masten's Report on Insurance

THE Ontario Government assured a deputation from the Ontario Division of this Association on January 7th, that a committee would be appointed at the coming session of the Legislature to study the report of the Insurance Commission by the Honorable Mr. Justice Masten, Commissioner, who investigated very carefully the whole subject of fire insurance as transacted in Ontario. The members of the deputation, in addition to urging for the appointment of the Committee of the Legislature, asked that an opportunity be given to present the views of manufacturers in regard to this report, which contained a great deal of valuable information and suggested much needed reforms in regard to the transaction of insurance.

The investigation before Mr. Justice Masten was most exhaustive, and a great deal of time and money was spent in securing and presenting the information, and therefore it is most important in the interest of manufacturers that action should be taken on the recommendations made by the Commissioner.

Labour Conditions in 1919

AT the beginning of 1919 the labor outlook was very dark indeed. The spectre of unemployment threatened the country. Labor appeared to be caught by sinister undercurrents. Disturbances and threats of strife became common. In the larger centres there was wild talk of revolution, and then, perhaps fortunately for the country as a whole, attempts were made to put into practice certain theories which had been advocated in regard to industrial relations. Immediately public opinion was awakened. It crystalized and decided that these theories would not do. They were rejected. Organized labor saw that if it hoped to keep the confidence of the country, it would have to purge itself of its undesirable elements, and organized labor, to its credit, acted with firmness and promptness in weeding out of its ranks those who advocated the adoption of unconstitutional and unlawful methods of securing their ends.

While illusory and revolutionary ideas seem to have been on the whole discredited, much attention has been given to what might be termed the development of better relations between employers and employees, and there has been a very real desire on the part of both employers and employees to study the conditions and laws governing industry and the special problems of all parties connected

with industry. Certain plans and proposals have been put into effect to give employees a greater responsibility and a more direct interest in industrial operations. It is too soon to decide which of these plans will be successful, but in a general way it would seem that co-operation and understanding appear to be taking the place of unnecessary strife and coercion. The prospect for 1920 is much brighter than it was at this time last year for 1919. In dealing with the subject of relations between employers and employees, it is well to remember that progress is made slowly and that anything really worth while is attained only after careful experiment and the most searching and earnest investigation into those principles that govern its constitution and operation.

The Eight-Hour Day

AT the International Labor Conference held in Washington, D.C., October 29th to November 29th, 1919, three of the Canadian delegates, viz: The Honorable N. W. Rowell, Honorable Senator Robertson and Mr. P. M. Draper, voted for the convention which recommended that the 8-hour day should be put into force by law in those countries stipulated in the convention. Mr. S. R. Parsons, delegate representing the employers, voted against the convention.

There is a misapprehension which has been carefully fostered in the minds of the public that the Peace Treaty made, or would make, the 8-hour day obligatory in the countries which signed the treaty. The treaty, however, only set forth as a principle that the 8-hour day should be a "standard to be aimed at," the inference being that it should be adopted by a country when the economic condition of that country justified such action. Even those who voted for the 8-hour day at the Peace Conference, had to recognize the theory which lay behind this principle to some extent, because certain countries, such as Japan and India, were excluded, or partially excepted, from the covenant.

The position taken by the employers of Canada at the National Industrial Conference in Ottawa in September, 1919, was that a commission should be appointed to undertake investigations as to the adaptability of the hours of labor principles of the Peace Treaty to the different industries of the country. They contended that the question was one which should be settled by economic conditions and not by an arbitrary law. They pointed out further that in a young and undeveloped country such as Canada the crying need was for greater production, especially at the present time, and that if an 8-hour day were enforced by law on all industry, production would inevitably be decreased.

The Government has been urged from various quarters to pass immediately an 8-hour day law. This it obviously cannot do until the constitutional point involved at least is settled. It is not by any means clear whether an 8-hour day law should be passed for all Canada by the Dominion Government, or whether separate legislation should be passed by each of the provinces. It is understood that the Government will first ascertain from competent authority whether or not it has the power to enact such legislation. This is obviously the proper thing to do, as it would be incredible folly to force an 8-hour day law through in the face of strong opposition and then find that it was unconstitutional.

Workmen's Compensation in Ontario

ONTARIO manufacturers are urging the Ontario Government to appoint a neutral Commissioner to the Workmen's Compensation Board, on which there is a vacancy. Members of the deputation from the Ontario Division of the Association pointed out to the Premier that they would prefer that neither the employers nor the employees should have the privilege of nominating a candidate for the vacancy. They stated further that it would not be in the interests of the administration of the Act to give the employees, who were beneficiaries under the Act, the right to name one of the commissioners, if the employers, who paid the assessments, were denied a similar right. The Board should be composed of three neutral commissioners. If the Board were composed, for example, of a representative of the employers and a representative of the employees, with a neutral Chairman, the tendency would be that it would become a one-man board with the other two commissioners acting as special pleaders for their particular interests. Progress could only be made in this case by the Chairman siding with one or other of the opposing factions in case of disagreement. The whole problem of the Board is to administer the Act equitably.

Another point urged by our Ontario members was that there is no necessity for the Board to create such a huge reserve. Manufacturers are deprived of the use of the surplus which has been paid in to the Board, above what is needed to pay current claims. This money should be productively used in industry, and only enough should be collected from employers to satisfy the demands for compensation for a reasonable period in advance.

The Farmers and the Eight-Hour Day

THOSE who advocated an 8-hour day law for all kinds of industry in Canada did not reckon sufficiently with the greatest of all industries, namely the farming industry. When the difficulty of applying the 8-hour day law to farming was brought to their attention, they tried to evade it by saying that farming could be excepted from the operation of the law. This might be all right for other kinds of workers, but it would be very bad for the farmers. For some years farmers have been complaining that their sons, daughters, hired men and domestic servants have been drawn away from the farms to the cities and towns by the attraction of shorter hours and higher pay which the urban communities offered. If

an 8-hour day law were passed which would still further decrease the number of hours in a factory, it is obvious that the attraction to the farmers' families and assistants would be increased. On the other hand, it is inevitable that reduction in hours must increase the cost of production of goods made in the shorter working time, and consequently the selling price of these goods would be also increased. Therefore, shortening the hours of labor in manufacturing presents a double disadvantage to the farmers: first, by drawing away their sons, daughters and domestic help to the cities, and second, by increasing the cost of the manufactured articles which the farmer must buy.

Those who calmly assumed, however, that the farmer would continue to be willing to work ten, twelve or fourteen hours a day, while other classes worked eight, are out in their reckoning.

In his address to the Dominion Grange in Toronto recently, Mr. J. C. Dixon, Master of the Grange, said in effect that if other people are going to have an 8-hour day, the farmers are going to have it also, although it would probably mean that city and town people would pay 30c a quart for milk, $2.00 a peck for potatoes, $5.00 a bushel for wheat and $1.00 a pound for butter. Mr. Dixon's theory of economics is quite sound. He knows that if the hours of labor on the farm are shortened, the quantity of food produced on the farm will be decreased, and consequently the selling price of the smaller amount of food produced will be proportionately increased. Mr. Dixon added that the introduction of an 8-hour day on the farm would probably do more than anything else to jolt city workers back to common sense.

Sane Counsel from a Banker

IN the course of his presidential address at the recent annual meeting of the Canadian Bank of Commerce, Sir Edmund Walker expressed views which will receive the hearty support of Canadian manufacturers. On the question of production, Sir Edmund was emphatic in his condemnation of useless argument when the world was so perilously short of necessities.

"It is not by standing idle while we discuss methods that we can get out of our present troubles," he declared. "If the call is to 'man the lifeboat,' we do not wait for academic discussion before the boat is launched on its life-saving mission, and too much argument between Capital and Labor, just now, is madness in view of what we seek to save. The rising curve of prices cannot be made to turn downward without an increase of production, nor can we face the heavy obligations left by the war except by greatly increased production."

Sir Edmund's comments on foreign trade, on the position of exchange, on the need for making the name "made in Canada" stand for quality, and on the great desirability of developing export business, were right to the point and will repay careful reading. His address is published elsewhere in this issue.

The Association and the Proposed Tariff Board

CERTAIN newspapers and individuals have been misrepresenting the attitude of this Association in regard to the proposal to create a tariff board. The attitude of the Association was set forth in the following resolution which was unanimously adopted at the Annual Meeting held in Toronto in June, 1919:

"Whereas, demands are made at frequent intervals by various sections of the Canadian people for radical changes in the Canadian Customs Tariff, and

"Whereas, such demands prevent the determination of the settled policy that is necessary for the development of industry and trade, and cause depression in business, unemployment and imperil invested capital, and

"Whereas, it is of vital importance that all industry should have reasonable assurance of stable conditions which will not be adversely and suddenly disturbed by unexpected and imperfectly considered tariff legislation.

"Therefore, be it resolved, that the Canadian Manufacturers' Association in annual meeting assembled in Toronto, on June 12th, 1919, respectfully urge the Dominion Government to appoint a permanent tariff board, acting in an advisory capacity to the Government, which will make a scientific study of the Canadian Customs Tariff and the tariffs of other countries with whose products Canadian producers are forced to compete, familiarize itself with costs of production at home and abroad, investigate the nature and probable national effect of all requests for tariff changes, and endeavor to frame a tariff that will serve the best interests of Canada, and thus assure the harmonious and all-round development of the country."

The Association has been recently charged with desiring to take away from the Government the control and fixing of the tariff schedules and to place this control in the hands of the proposed tariff board. The Association never at any time advocated such action. It would be idle to do so, because it would be unconstitutional. The Canadian customs tariff is an instrument of taxation and taxation cannot be vested in any body except Parliament. Parliament must always determine and fix the rates of duty under the customs tariff. The tariff board, as the resolution suggests, would merely act in an advisory capacity to Parliament. In other words, it would be an investigating body. The only reason for its creation is that it should provide a body of competent men who could pursue continuous investigations, not only into Canadian conditions, but also into the conditions of other countries. Members of Parliament have not time to do this, nor will anyone else who is not specially detailed for the task. A great deal of tariff legislation is haphazard and is based upon insufficient information. Proposals are made the subject of acrimonious debate, and the tariff is always floating about on the troubled sea of politics, with the result that through uncertainty of what may happen, business conditions are frequently and unnecessarily disturbed. A tariff board, if properly constituted, should be able to pursue disinterested investigations, and the results of its labours would be available for Parlia-

ment, which could accept or reject them according to its pleasure.

The Tariff Commission of the United States affords a precedent. It was originated by a Republican Government and continued and enlarged by a Democratic Government. It has just issued its third report, which is a very valuable document and contains an immense amount of information which could not have been secured by other means. Is there any good reason why we could not have a similar body in Canada?

National Industrial Conference in the United States

THE second Industrial Conference called by President Wilson published a preliminary statement on December 29th, setting forth a proposed plan for the creation of a National Industrial Tribunal, with twelve Regional Boards of Inquiry and Adjustment, to deal with labor disputes.

It is proposed that this National Industrial Tribunal be composed of nine members chosen by the President and confirmed by the Senate, three to be nominated by the Secretary of Commerce, three by the Secretary of Labor, and three presumably to be nominated by the President, not more than five of whom are to be of the same political party, and to constitute a Board of Appeal.

The Regional Boards of Inquiry and Adjustment are to be created from panels of employers and employees for each region. These panels, it is proposed, shall be prepared by the Secretary of Commerce and the Secretary of Labor, respectively, after conferences with employers and employees of the regions. Panels are to have the approval of the President, who has the power to remove any members of them.

In brief, the proposed plan would create a list of individuals from whom arbitrators or boards of inquiry could be selected. The statement of the Conference says that the objects of the proposed plan are as follows:

"The main objects of the above plan are to secure national co-ordination and to stimulate the formation of bodies for local adjustment. The requirement of unanimity of agreement has by experience in the United States proved remarkably successful and should assure such confidence that neither side can rightfully refuse to submit to adjustment. A precedent condition of such submission is that the interruption of production shall be delayed. The frank meeting of the parties in controversy together with other men skilled in questions at issue always gives promise of settlement. On the other hand, refusal to submit to the Board, not only inaugurates a legal inquiry, but also prejudices the obstinate party or parties in public opinion. Moreover, the fact that membership on the board of inquiry is available to either party to the conflict singly would tend further to weaken the position of the other. When both parties join, the Board at once becomes a Board of Adjustment, and conflict ceases by agreement until a determination is reached."

With respect to public utility industries, the statement says:

"While continuous operation of all utilities is conducive to the general convenience of the people, that of some of them is essential to their very existence. Of the latter class the railways are a conspicuous example and bear the same relation to the body politic as do the arteries to the human body. Suspension produces practical social and economic anarchy, and may impose hardships even to the point of starvation upon large sections of the community. The interruption in such essential public utilities is intolerable."

Respecting Government employees the statement says:

"The right of Government employees to associate for mutual protection, the advancement of their interests, or the presentation of grievances, cannot be denied, but no such employees who are connected with the administration of justice or the maintenance of public safety or public order should be permitted to join or retain membership in any organization which authorizes the use of the strike or which is affiliated with any organization which authorizes the strike."

The Industrial Conference has adjourned until January 12th.

Group Life Insurance

THE Department of Insurance of the Dominion Government has announced that it is now legally possible for Life Insurance Companies to transact Group Life Insurance in Canada; and that a number of American and Canadian companies have filed their rates with the Department and are ready to accept this type of insurance. The Insurance Committee of the Association has been studying this subject for over two years. In April last the results of their investigations were presented to the executive council, which decided to ask the Government to provide facilities for the transaction of this type of insurance.

Group Life Insurance permits the insuring of all the employees of a company under one policy. As a rule, the company pays the premium for all the policies. No medical examination is necessary. Investigation indicates that the only form of insurance which is practicable for an industrial plant is the One Year Renewable Term Insurance. The most popular form of contract appears to provide a preliminary insurance of $500 per employee, with annual increments. As a rule, no employee is insured unless he has been with the firm for six months.

Group Life Insurance as applied to factories has opponents as well as supporters. Although it has been introduced in England, the transactions have not yet reached any considerable volume.

At the last meeting of the National Association of Manufacturers in New York, May 1919, a report was submitted from the Committee on Industrial Betterment, Health and Safety which dealt with the subject of Group Life Insurance. The Committee had made an exhaustive investigation into the question and included testimonials from twenty-three large manufacturing concerns in the United States, all of whom had taken out Group Life Insurance on their employees, and were satisfied with the results.

Since that time a considerable number of manufacturing concerns in the United States have followed their example. On a subject on which the greatest experts are not agreed, it would be rash to hazard any opinion as to the ultimate success of the application of Group Life Insurance to manufacturing plants, but the Executive Council felt that as Group Life Insurance had been tried with

satisfaction by some manufacturers of other countries, and as some members of the Association wished to avail themselves of this type of insurance, the facilities for transacting it should be provided.

The chief arguments used in favor of Group Life Insurance are that it tends to decrease the volume of floating labor, and that it provides insurance for employees who otherwise, on account of physical defects, would not be able to secure it.

Where Will the Revenue Come From?

The Dominion Government needs the immense sum of $500,595,111 to pay its bills for the fiscal year ending March 31st, 1920. The question naturally arises, why does the Government need such a huge sum, and how does it propose to spend it? The following extracts from the official estimates explain how it is proposed to spend the money:

Public Debt, including Sinking Funds	$106,847,443.64
Railways and Canals—Capital	50,896,681.00
Railways and Canals—Income	36,287,394.16
Public Works—Capital—Marine Department.	30,546,900.00
Pensions	30,053,646.72
Miscellaneous	26,676,233.00
Soldiers' Land Settlement	45,016,000.00
Soldiers' Civil Re-establishment—Outside Service	62,763,420.00
Post Office	19,701,530.25
Public Works—Income	12,098,883.14
Subsidies to Provinces	11,490,860.48
Civil Government	8,573,357.41
Railways and Canals—Collection of Revenue	7,849,000.00
Customs	4,815,000.00
Arts and Agriculture	4,748,000.00
Public Works—Capital	4,450,000.00
Militia and Defence	4,187,600.00
Dominion Lands—Income	5,683,745.00
Main Subsidies and Steamship Subventions	2,588,787.33
Royal Northwest Mounted Police	2,249,505.08
Lighthouse and Coast Service	2,205,800.00
Indians	1,946,853.00
Trade and Commerce	1,901,095.33
Ocean and River Service	1,812,300.00
Naval Service	1,805,000.00
Legislation	1,881,648.17
Administration of Justice	1,554,083.34
Immigration and Colonization	1,438,000.00
Excise	1,373,681.25
Fisheries	1,305,000.00
Penitentiaries	966,700.00
Public Works—Collection of Revenue	951,000.00
Mines and Geological Survey	765,400.00
Charges of Management	571,850.00
Scientific Institutions	457,785.00
Weights and Measures, Gas and Electric Light Inspection	417,510.00
Superannuation	400,000.00
Labor	427,500.00
Quarantine	241,000.00
Government of the Yukon Territory	215,000.00
Police	187,000.00
Steamboat Inspection	87,827.77
Marine Hospitals	78,000.00
Adulteration of Food, etc.	73,000.00
Government of the Northwest Territories	8,000.00
Total	$500,595,111.07

When we know what the money is needed for, the next question which arises is, where does the Government expect to get it? They realize that it is impossible, under our present system of taxation, to get all of it during the current year. Consequently, the Government has decided to borrow and add to the national debt the huge sum of $148,809,620.

Last year the Dominion Government revenue was $312,946,747.18, and was derived from the following sources:

Canadian Customs Tariff	$113,412,285.67	
Special War Tariff	44,726,091.67	
Total	$158,138,377.34	
Less drawback on Exports	10,969,189.36	
Net		$147,169,187.98
Inland Revenue (Excise)		30,342,034.26
Special War Revenue Act, 1915 (Part 1)		1,969,218.32
Business Profits War Tax Act and Income Tax, 1916		42,319,781.61
Other Special Tax Revenue		11,888.508.40
Other Sources		79,258,016.61
Total Revenue		$312,946,747.18

Briefly then, in round numbers the country's revenue problem is:

Needed this year	500 millions
Last year's revenue	312 millions
Shortage this year	188 millions

How then does the Government hope to make up this huge shortage? They have already decided to borrow 148 millions, so that the problem in regard to the shortage resolves itself into the following form:

Total deficit this year	188 millions
We will borrow	148 millions
We are still short	40 millions

Referring again to the figures above, it will be seen that the tariff provided 147 millions of revenue out of a total revenue of 312 millions. Those who advocate the abolition of or a great reduction in the tariff, are faced with the problem of finding other adequate means of providing revenue lost. Such alternative methods as direct taxes on unimproved land values and natural resources, increased taxation on personal incomes, increased inheritance taxes and increased taxation on corporations, are suggested. We have all these forms of taxation, and no doubt they will have to be increased if we are to pay our debts. At the present time we are not paying as we go. We must not forget that this year we are borrowing 148 millions. Can anyone contend that the forms of taxation suggested above would, for example, secure the 148 millions which we have already borrowed, and also the 40 millions of a deficit, and at the same time provide what was lost through reduction or abolition of the tariff? We cannot go on borrowing indefinitely. Sooner or later we must pay as we go, and the inevitable inference is that we will need the taxation derived through the tariff, in addition to any other legitimate form of taxation which can be devised, if the national expenditures are to be met.

The Organized Farmers and Their Platform

The Policies Enunciated by the Farmers of Canada to Secure the Enactment of which Members of the Canadian Council of Agriculture Declare Their Intention to Elect as Many Representatives as Possible to the Next House of Commons

(Reproduced from Official Sources)

What the Farmers Advocate

On this and the following pages will be found a reproduction of the Farmers' Platform, or, as it has recently been christened, the new National Policy for Canada. It is published in "Industrial Canada" for the information of those Canadian manufacturers who have not, as yet, had an opportunity to secure and study this important document. The avowed intention of the farmers to elect as many members as possible to the next House of Commons in order to secure the enactment of the policies advocated in the platform, makes it highly desirable that manufacturers should know exactly what it is that the farmers are after in their approaching political campaign.

A CONFERENCE of representatives from Western Grain Growers' Associations, and other similar organizations, was held in Winnipeg on January 6th, 1920, to complete plans for action in Federal politics. At the conclusion of the deliberations the following resolution was passed and given to the Press:—

"Whereas the cause of better government in Canada has been ever a principal consideration in the work and aspiration of the organized farmers' movement in all the provinces of the Dominion;

"And whereas this cause has been the dominating feature of our work as organized farmers, during the past twelve months;

"And whereas the need of continued action to bring into effect the reforms recommended in the farmers' platform which has been promulgated by the Canadian Council of Agriculture is most urgent, considered from the broadest national point of view;

"And whereas this platform, which has been described as a new national policy for Canada, is based upon the principle of the greatest good to the greatest number of people living in the Dominion, without regard to race, creed, or occupation; and is in no sense a demand for special legislation to benefit the few at the expense of the many;

"Therefore be it resolved that we, the members of the Canadian Council of Agriculture in conference with the accredited delegates of the Federal electoral districts of Alberta, Saskatchewan, and Manitba, and the representatives of the rural districts of Ontario, here assembled in the City of Winnipeg on this sixth day of January, 1920, do *declare our intention of electing as many representatives as possible to the House of Commons at the next general election, who will endeavour to bring the Farmers' Platform into effect; and to this end invite the support and assistance of all citizens who believe in the principles enunciated in this platform.*

"Whereas the poltical platform advocated by the organized farmers is in no sense a vocational class platform;

"And whereas it is the hope of those advocating this platform that those of all classes who believe in the principles enunciated in it will support candidates at the next federal election who will have been pledged to its support;

"Therefore be it resolved:

"That this platform shall be known in future as the 'New National Policy.'"

A second resolution was passed, embodying the decision of the Conference to continue organization on provincial lines, as follows:—

"Whereas political action amongst the organized farmers of the provinces here represented has been taken in response to the demands formulated in resolutions which were adopted by the provincial associations at their last annual conventions;

"And whereas, whatever political strength that exists at present amongst the organized farmers has been developed on the basis of organization within the provinces;

"And whereas for future action it is necessary to preserve intact that machinery and organization which have already been devised within the provinces;

"Therefore be it resolved that the political activities under the auspices of the organized farmers' movement shall continue for the present to be conducted on the provincial basis, according to any plans which the existing organizations may see fit to adopt.

In the pamphlet containing the "Farmers' Platform," which has been issued officially by the Canadian Council of Agriculture, its history is sketched as follows:—

"The Farmers' Platform first came into existence when it was drafted and published by the Canadian Council of Agriculture in December, 1916. It was subsequently unanimously endorsed at the annual conventions of the United Farmers of Ontario, the Manitoba Grain Growers' Association, the Saskatchewan Grain Growers' Association, and the United Farmers of Alberta. During the past two years several of the planks of the platform, such as woman suffrage, prohibition, income tax, and corporation tax have been adopted in full, and others partially, by the Federal Parliament. This fact, as well as changed conditions arising out of the war, necessitated some revision and extension of the platform. These were made by the Council which met at Winnipeg on November 26 to 29, 1918."

The official text of the "Farmers' Platform," published by the Canadian Council of Agriculture, Winnipeg, the central body with which many farmers' organizations are affiliated, follows:—

1. A League of Nations as an international organization to give permanence to the world's peace by removing old causes of conflict.

2. We believe that the further development of the British Empire should be sought along the lines of partnership between nations free and equal, under the present governmental system of British constitutional authority. We are strongly opposed to any attempt to centralize imperial control. Any attempt to set up an independent authority with power to bind the Dominions, whether this authority be termed parliament, council, or cabinet, would hamper the growth of responsible and informed democracy in the Dominions.

The Tariff

3. Whereas Canada is now confronted with a huge national war debt and other greatly increased financial obligations, which can be most readily and effectively reduced by the development of our natural resources, chief of which is agricultural lands;

"And whereas it is desirable that an agricultural career should be made attractive to our returned soldiers and the large anticipated immigration, and owing to the fact that this can best be accomplished by the development of a national policy which will reduce to a minimum the cost of living and the cost of production;

And whereas the war has revealed the amazing financial strength of Great Britain, which has enabled her to finance

not only her own part in the struggle, but also to assist in financing her Allies to the extent of hundreds of millions of pounds, this enviable position being due to the free trade policy which has enabled her to draw her supplies freely from every quarter of the globe, and consequently to undersell her competitors on the world's market, and because this policy has not only her own part in the struggle, but also to assist in strengthened the bonds of Empire by facilitating trade between the Motherland and her overseas dominions. We believe that the best interests of the Empire and of Canada would be served by reciprocal action on the part of Canada through gradual reductions of the tariff on British imports, having for its objects closer union and a better understanding between Canada and the Motherland, and at the same time bring about a great reduction in the cost of living to our Canadian people;

Fosters Combines

And whereas the Protective Tariff has fostered combines, trusts, and "gentlemen's agreements" in almost every line of Canadian industrial enterprise, by means of which the people of Canada—both urban and rural—have been shamefully exploited through the elimination of competition, the ruination of many of our smaller industries, and the advancement of prices on practically all manufactured goods to the full extent permitted by the tariff:

And whereas agriculture—the basic industry upon which the success of all other industries primarily depends—is unduly handicapped throughout Canada, as shown by the declining rural population in both Eastern and Western Canada, due largely to the greatly increased cost of agricultural implements and machinery, clothing, boots and shoes, building material, and practically everything the farmer has to buy, caused by the Protective Tariff, so that it is becoming impossible for farmers generally, under normal conditions, to carry on farming operations profitably;

And whereas the Protective Tariff is the most wasteful and costly method ever designed for raising national revenue, because for every dollar obtained thereby for the public treasury, at least three dollars pass into the pockets of the protected interests, thereby building up a privileged class at the expense of the masses, thus making the rich richer and the poor poorer;

And whereas the Protective Tariff has been and is a chief corrupting influence in our national life because the protected interests, in order to maintain their unjust privileges, have contributed lavishly to political and campaign funds, thus encouraging both political parties to look to them for support, thereby lowering the standard of public morality.

Definite Tariff Demands

Therefore be it resolved that the Canadian Council of Agriculture, representing the organized farmers of Canada, urges that, as a means of remedying these evils and bringing about much-needed social and economic reforms, our tariff laws should be amended as follows:—

(*a*) By an immediate and substantial all-round reduction of the customs tariff.

(*b*) By reducing the customs duty on goods imported from great Britain to one-half the rates charged under the general tariff, and that further gradual, uniform reductions be made in the remaining tariff on British imports that will ensure complete Free Trade between Great Britain and Canada in five years.

(*c*) That the Reciprocity Agreement of 1911, which still remains on the United States statute books, be accepted by the Parliament of Canada.

(*d*) That all foodstuff not included in the Reciprocity Agreement be placed on the free list.

(*e*) That agricultural implements, farm machinery, vehicles, fertilizers, coal, lumber, cement, illuminating fuel and lubricating oils be placed on the free list, and that all raw materials and machinery used in their manufacture also be placed on the free list.

(*f*) That all tariff concessions granted to other countries be immediately extended to Great Britain.

(*g*) That all corporations engaged in the manufacture of products protected by the customs tariff be obliged to publish annually comprehensive and accurate statements of their earnings.

(*h*) That every claim for tariff protection by any industry should be heard publicly before a special committee of Parliament.

Taxation Proposals

4. As these tariff reductions may very considerably reduce the national revenue from that source, the Canadian Council of Agriculture would recommend that, in order to provide the necessary additional revenue for carrying on the government of the country, and for the bearing of the cost of the war, direct taxation be imposed in the following manner:—

(*a*) By a direct tax on unimproved land values, including all national resources.

(*b*) By a graduated personal income tax.

(*c*) By a graduated inheritance tax on large estates.

(*d*) By a graduated income tax on the profits of corporations.

(*e*) That in levying and collecting the business profits tax the Dominion Government should insist that it be absolutely upon the basis of the actual cash invested in the business, and that no consideration be allowed for what is popularly known as watered stock.

(*f*) That no more natural resources be alienated from the Crown, but brought into use only under short-term leases, in which the interests of the public shall be properly safeguarded, such leases to be granted only by public auction.

The Returned Soldiers

5. With regard to the returned soldier we urge:—

(*a*) That it is the recognized duty of Canada to exercise all due diligence for the future well-being of the returned soldier and his dependents.

(*b*) That demobilization should take place only after return to Canada.

(*c*) That first selection for return and demobilization should be made in the order of length of service of those who have definite occupation awaiting them or have other assured means of support, preference being given first to married men, and then to the relative needs of industries, with care to insure so far as possible the discharge of farmers in time for the opening of spring work upon the land.

(*d*) That general demobilization should be gradual, aiming at the discharge of men only as it is found possible to secure steady employment.

(e) It is highly desirable that, if physically fit, discharged men should endeavor to return to their former occupation, and employers should be uged to reinstate such men in their former positions wherever possible.

(*f*) That vocational training should be confined to those who, while in the service, have become unfitted for their former occupation.

(*g*) That provision should be made for insurance at the public expense of unpensioned men who have become undesirable insurance risks while in the service.

(*h*) That facilities should be provided at the public expense that will enable returned soldiers to settle upon farming land, when by training or experience they are qualified to do so.

6. We recognize the very serious problem confronting labor in urban industry resulting from the cessation of war, and we urge that every means, economically feasible and practicable, should be used by federal, provincial and municipal authorities in relieving unemployment in the cities and towns; and, further, recommend the adoption of the principle of co-operation as the guiding spirit in the future relations between employer and employees—between capital and labor.

Land Settlement

7. A land settlement scheme based on a regulating influence in the selling price of land. Owners of idle areas should be obliged to file a selling price on their lands, that price also to be regarded as an assessable value for purposes of taxation.

8. Extension of co-operative agencies in agriculture to cover the whole field of marketing, including arrangements with consumers' societies for the supplying of foodstuffs at the lowest rates and with the minimum of middleman handling.

9. Public ownership and control of railway, water and aerial transportation, telephone, telegraph and express system, all projects in the development of natural power, and of the coal mining industry.

10. To bring about a greater measure of democracy in government we recommend:—

(*a*) The immediate repeal of the War Time Elections Act.

(*b*) The discontinuance of the practice of conferring titles upon citizens of Canada.

(*c*) The reform of the federal Senate.

(*d*) An immediate check upon the growth of government by order-in-council, and increased responsibility of individual members of Parliament in all legislation.

(*e*) The complete abolition of the patronage system.

(*f*) The publication of contributions and expenditures both before and after election campaigns.

(*g*) The removal of press censorship upon the restoration of peace and the immediate restoration of the rights of free speech.

(*h*) The setting forth by daily newspapers and periodical publications of the facts of their ownership and control.

(*i*) Proportional representation.

(*j*) The establishment of measures of direct legislation through the initiative, referendum and recall.

(*k*) The opening of seats in Parliament to women on the same terms as men.

Amendments to the Platform

The platform as above was officially amended at a meeting of the Canadian Council of Agriculture held in Winnipeg on November 11th—13th, 1919. The amendments are reported as follows in the *Grain Growers' Guide*, the official organ of the Canadian Council of Agriculture, in its issue of November 19th, 1919:—

"The repeal of the Reciprocity Act by the United States Congress made it necessary to revise the paragraphs relating thereto in the platform of the council. Paragraph (*c*) of section 4 was made to read: 'By endeavoring to secure unrestricted reciprocal trade in natural products with the United States, along the lines of the Reciprocity Agreement of 1911.' Paragraph (*d*) was made to read: 'By placing all foodstuffs on the free list.' Paragraph (*e*) was amended to read: 'That agricultural implements, farm and household machinery, vehicles, fertilizers, coal, lumber, cement, gasoline, illuminating fuel and lubricating oils be placed on the free list and that all raw materials and machinery used in their manufacture also be placed on the free list.'

"Under the heading 'Other Democratic Reforms,' the paragraph calling for the immediate repeal of the War-time Elections Act was considered no longer necessary, and was eliminated. New clauses were inserted recommending that the new Dominion Elections Act be based on the principle of establishing the federal electorate on the provincial franchise, and a naturalization act based upon personal naturalization only.

"The prohibition plank was placed in section 10 in the following terms: '(*m*) Prohibition of the manufacture, importation and sale of intoxicating liquors as beverages in Canada'."

Methods of Financing Export Business

By L. D. WILGRESS
Superintendent, Foreign Trade Department, Royal Bank of Canada

THE methods of financing export shipments may be roughly divided into two classes, as follows:

(1) When the responsibility for arranging the financing of the shipment rests with the importer of the goods;

(2) When the responsibility is borne by the exporter.

In the former case the method most usual in the case of exports from North America is for the importer to arrange with his bankers for the opening of a bank credit at the port of shipment in favor of the exporter. In the second case the exporter commonly draws a draft or a bill of exchange on the importer for the value of the shipment, attaching thereto all shipping documents. The exporter usually discounts the bill with his banker or has it forwarded for collection to the bank's branch or correspondent at the place in which the importer is located. The bill would be drawn payable at sight or at so many days after sight according to the terms agreed upon at the time of sale; documents would be surrendered upon payment or acceptance of the bill.

Bank credits are of a variety of different forms and a great deal depends on the customs of the country to which the goods are shipped, the class of goods concerned and the standing of the individual customers. Frequently the credit is a confirmed credit, in which case the bank informs the exporter that the credit has been opened and thereby holds itself responsible for the payment of the money. In an ordinary credit the bank assumes no such responsibility. Sometimes the credit is in the form of an authorization to the bank at port of shipment to accept the time drafts of the exporter under certain conditions. The latter is then able to discount these drafts, when accepted by the bank, in the open market. Bank credits are opened under certain stipulations as to amount, time of draft, and other conditions governing the drawing upon the credit. Credits are opened by the importer approaching his bank and the latter instructs its correspondent at port of shipment to open the credit in favor of the exporter. The matter is arranged between the importer and the bank with which he deals. A great deal, therefore, depends upon the standing of the importer. For arranging the credit the bank charges the importer a certain commission.

In the case of bank credits the exporter receives full payment for his goods upon shipment and compliance with the terms of the credit, which usually provide for the surrender of a full set of shipping documents, etc. The line of credit, however, which the importer enjoys at his bank, is encroached upon to the amount of the credit and the length of the time during which it has to run. Where the standing of the customer justifies such a course, competition for trade is rendering more frequently necessary the adoption of the second procedure in the above classification. Bills drawn on foreign customers and covering a shipment of merchandise can nearly always be discounted at the Canadian bank of the exporter and part payment at least received for the goods shipped. The principal Canadian banks have established at head offices and leading branches a foreign department for the purpose of advising customers regarding the financing of export shipments. Particulars are given as to the terms on which drafts are negotiated, and acceptance and other credits established through correspondents or branches in foreign countries. Enquiries can be made through any of the branches of these banks as to the credit standing of prospective purchasers or for other information.

Before the war goods were commonly sold at terms ranging from 30 to 120 days sight; while for machinery and associate lines even longer terms of credit were extended. Changed conditions have restricted the practice of long terms; sight drafts and bank credits have become the most common mode of payment for goods. On the other hand competition for trade will undoubtedly restore to a certain extent the commercial practices prevailing before the war, and Canadian exporters, whenever the standing of the foreign customer justifies it, should extend the same terms as accorded by competitors. The above remarks on the financing of export business will have shown that this can be done with the assistance of the banks, so that payment may usually be received at least in part upon the handing over of documents. Naturally the cost of the service rendered by the bank is collected from the purchaser or else added to the invoice value of the goods.

The Labor Conference at Washington

A Summary of the Proceedings at the First International Labor Conference—The Main Arguments on the Question of the Eight-Hour Day—Recommendations Made by the Conference on Many Important Questions

By E. BLAKE ROBERTSON
Secretary, Ottawa Office, C.M.A.

In the December issue of INDUSTRIAL CANADA *there appeared a preliminary report on the proceedings at the First International Labor Conference at Washington, prepared by Mr. J. T. Stirrett, General Secretary. As this report was written before the Conference had concluded its sessions, it was necessarily incomplete. The following summary of the proceedings, by Mr. Robertson, covers the entire Conference. Part of it duplicates the report appearing in the December issue, but for the sake of giving a complete account of the historic gathering Mr. Robertson's summary is given in its entirety.*

IN accordance with the provisions of the Peace Treaty, the International Labor Conference convened at Washington, D.C., on October 29th, 1919. The agenda submitted by the International Organizing Committee covered the following items:

1. Application of principle of the 8-hour day or of the 48-hours week.
2. Question of preventing or providing against unemployment.
3. Women's Employment:
   (a) Before and after child-birth, including the question of maternity benefit.
   (b) During the night.
   (c) In unhealthy processes.
4. Employment of Children:
   (a) Minimum age of employment.
   (b) During the night.
   (c) In unhealthy processes.
5. Extension and application of the International Conventions adopted at Berne in 1906, on the prohibition of night work for women employed in industry, and the prohibition of the use of white phosphorus in the manufacture of matches.

Some of the delegates were late in arriving, but during the latter part of the Conference the Government, employers and workmen were represented from the following countries: Argentine Republic, Belgium, Canada, Republic of Czecho-Slovaque, Denmark, Finland, France, Great Britain, Greece, India, Italy, Japan, Netherlands, Norway, Panama, Peru, Poland, Portugal, Serbe-Croats-Slavenes, South Africa, Spain, Sweden, Switzerland and Jugo-Slav.

The Governments only were represented from Bolivia, Brazil, Chili, China, Colombia, Equador, Guatamela, Haiti, Nicaragua, Paraguay, Persia, Salvador, Siam, Uruguay, San Domingo and Venezuela.

The Government and employers only were represented from Cuba.

The first four days of the Conference were taken up in general organization and the appointment of the following committees:

Committee on Credentials.....	5	
Committee of Selection (arranging daily programme of work).....	24	Senator Robertson representing Canada.
Committee on Standing Orders (Rules of Procedure)	9	Mr. Draper representing Canada.
Committee on Applications for Admission	6	Mr. Rowell representing Canada.
Committee on Unhealthy Processes	21	Mr. Draper representing Canada.
Committee on Employment of Women	21	Mr. Draper representing Canada.
Committee on Employment of Children	21	
Committee on Tropical Countries.	24	
Committee on Hours of Work....	17	Canadian Government, Employers and Workers represented.
Committee on Unemployment.....	18	Canadian Government, Employers and Workers represented.

With short breaks for routine proceedings, the fifth, sixth, seventh, eighth and ninth days were devoted to a discussion of the eight-hours day and 48-hours week. Hon. Mr. Barnes introduced the matter in a pro-labor speech, the outstanding sentences of which were:

"Workers throughout the war have kept to their work in the hope and belief that shorter working hours would be made general after the war. They were promised that a shorter working day would be brought in after the war, and the Governments are now expected to fulfil the bond."

"We are after leisure rather than pay."

"My labor colleagues will think I have been somewhat moderate and modest in my proposals. If so, I would say to them that this Conference is not the last Conference; it is the first one. What we cannot do this year, we may do next year or the year after."

At the opening of the Conference on the sixth day Mr. Marjoribanks (Great Britain) submitted an alternative proposal regarding the 48-hours week, to be discussed at the same time as the Draft Convention; this alternative proposal contained the following wording:

"The Conference, while admitting the principle of the limitation of daily work to eight hours, or to a 48-hours week, is of the opinion, etc., etc."

The opinion of the Canadian employers' delegate was not in harmony with the majority of the other employers who sanctioned the alternative proposal, although the alternative proposal was much more satisfactory than the Draft Convention prepared by the organizing committee, in that it was limited to a recommendation only and provided that the enforcement of the proposed recommendation was dependent upon the formal acceptance of the recommendation by Austria, Belgium, Canada, Cuba, Denmark, France, Germany, Great Britain, Holland, India, Italy, Norway, Japan, Poland, Spain, Sweden, Switzerland, Czecho-Slovaque and United States.

Mr. Parsons' remarks on the eighth day of the Conference set forth clearly and concisely the reasons why Canada should not at the present time enact legislation along these lines. In connection with the argument that decreased hours must necessarily mean decreased production, it is interesting to note that the Hon. Mr. Barnes, in speaking of the reduction of hours in Japan, is reported on page 423 of the Provisional Records as saying:

"If you bring Japan down to the same level as other countries, you would be asking Japan to reduce her production by about 60 per cent., and you would be asking other countries to reduce theirs probably by about 10 per cent."

Other motions and propositions advocated the application of the eight-hours day to commerce, agriculture and ocean navigation, and likewise held that eight-hours day should be interpreted as meaning 44-hours week.

On the ninth day the Draft Convention prepared by the organizing committee, together with all suggested amendments thereto, was referred to a special committee of fifteen, which finished its consideration of the subject on November 22nd.

At the employers' caucus, strenuous opposition was offered to Mr. Parsons' proposal to speak against the draft as agreed upon by the committee of fifteen. With or without authority, the chairman of the committee offered to guarantee that Mr.

Rowell would not speak in favor of the eight-hour day but would restrain himself to a silent vote providing Mr. Parsons agreed to do likewise. This Mr. Parsons refused to do, and on the sixteenth day of the Conference submitted his statement or reasons why he was unable to support the Draft Convention. Mr. Barnes, replying, misquoted the Peace Treaty by saying:

"If you will look at Chapter 13 of the Peace Treaty, you will find nine general principles laid down, and one of those nine general principles is that an eight-hour day and a 48-hour week should be adopted by all signatory countries in so far as it had not then been adopted."

Re-written by Borden

It is an open secret that the nine general principles referred to were re-written by Sir Robert Borden, and that the phraseology finally used was much more indefinite and less binding than that in which the principles were originally enunciated. In referring to "right of association," "adequate living wage," and in fact to eight out of nine of the general principles laid down, clear and unequivocal language was used, but in referring to the eight-hours day it was referred to as a "standard to be aimed at."

When we speak of "standards to be aimed at," we usually refer to ideals or aspirations the final accomplishment of which is expected to take place in the dim and distant future rather than almost immediately. Without doubt, Mr. Barnes was aware of the re-writing of the nine principles and of the real reasons why they were re-written, and his remarks and the construction he placed upon the Peace Treaty were dangerously close to deliberate misquotation.

Mr. Rowell, speaking a few moments after Mr. Barnes, said:

"Mr. Parsons has very clearly presented the views of the employers, but in the last analysis the Governments in the different countries concerned must determine what the policy of the country should be, and my colleague and I, representing the Government of Canada, intend voting for this convention. I wish to say further, that while we appreciate the difficulties, Mr. President—and this section raises some of them—of the United States possibly adopting one policy and Canada another, I desire to make our position clear that the action of the Government of Canada does not depend upon the action of the Government of the United States in dealing with these matters. It has not in the past. It will not in the future. I desire to make that position clear because I notice in the press of the city and elsewhere, it has been assumed that Canada would not take any action unless the United States took action also."

These remarks were illogical because, while refusing to be bound by any action of the United States, they presupposed Canada being bound by the decisions reached by China, Persia Siam, and the other powers represented at the Conference.

The general attitude of the European delegates, whether Government or employers, on the question of hours was, by their own private admissions, dictated by a fear of revolution in their countries unless the demands of labor were partially met, and coupled with this there was doubtless a strong desire to place the necks of American nations in the same noose as that now encircling the European nations who have adopted the policy of complying with the demands of organized labor. Of the delegates from South American Republics, some were tinged with Socialistic ideas and the others had the Latin characteristic of adopting the line of least resistance and voted complacently with the majority, although in some cases at least such votes were not in conformity with their own real views as expressed in private conversation.

Each State ratifying the Draft Convention regarding hours of work agrees to bring its provisions into operation not later than July 1st, 1921. Relaxation as to length of hours, as to particular industries, and as to date of application, are made in the cases of Japan, British India, Greece and Roumania. The Convention does not apply to China, Persia and Siam, whose hours of work shall be considered at a later Conference.

Given briefly, the Convention provides for an eight-hours day and a 48-hours week in all industrial undertakings, but not in commerce or agriculture, nor to transport by sea or inland waterways, the latter of which is to be dealt with by a special conference. The provisions do not apply to persons holding positions of supervision or management, nor to persons employed in a confidential capacity. Hours may be exceeded in case of accident—actual or threatened—or in case of urgent work to be done to machinery or plant. Where by the nature of the work it must be carried on continuously, by a succession of shifts, hours may be lengthened up to but not exceeding 56 in the week on the average. After consultation with organizations of employers and workers concerned, Governments may by regulation determine:

(1) Permanent exceptions that may be allowed in preparatory or complementary work.
(2) Permanent exceptions for certain classes of workers whose work is essentially intermittent.
(3) Temporary exceptions to deal with exceptional cases of pressure of work.

Such regulations shall fix the maximum of additional hours and pay for overtime shall not be less than one and one-quarter times regular rate, and such regulations shall be communicated to the International Labor Office. Employers will be required to keep posted up in conspicuous places, notices regarding hours at which work begins and ends, and it shall be an offence against the law to employ persons outside the fixed hours.

The final vote on the Eight-Hour Day Convention was:

For	82—Including 13 votes from countries receiving special treatment.
Against	2—Messrs. Parsons and Paus, Employers' Delegates from Canada and Norway.
Abstention	1—Mr. Baldesi, Workmen's Delegate from Italy.

The Draft Convention concerning Unemployment, the provisions of which the States ratifying same agree to bring into operation not later than July 1st, 1921, provides:

(1) For the prompt and systematic despatch of statistical information to the International Labor Office by each State ratifying the Convention.
(2) The establishment of free public employment agencies, with committees including representatives of employers and workers to advise regarding the manner in which same shall be operated.
(3) States which have established systems of Unemployment Insurance, shall upon terms agreed upon between the members concerned make arrangements whereby workers belonging to one State and working in the territory of another shall be admitted to the same rate of benefits of insurance as those obtained for the workers belonging to the other State.

Employment of Women

The States ratifying the "Draft Convention Concerning the Employment of Women Before and After Child-birth," agree to bring its provisions into force not later than July 1st, 1922. The Convention provides that in industrial or commercial undertakings no woman shall be permitted to work during the six weeks following confinement; she shall have the right to leave her work if she produces a medical certificate stating that her confinement will probably take place within six weeks; she is entitled, during the six weeks' period before and after confinement, to benefits sufficient for the full and healthy maintenance of herself and child out of public funds or by means of a system of insurance; if nursing her child, she shall be allowed half an hour twice a day during her working hours for the purpose; she cannot be discharged during the periods mentioned before or after confinement. These provisions apply to all women whether

benefits for the child apply whether the child is legitimate or illegitimate.

The Draft Convention concerning "Employment of Women during the Night" provides that no woman, without distinction of age, shall be employed during the night in any public or private industrial undertaking other than one in which only members of the same family are employed, and by the term "night" is meant a period of at least eleven consecutive hours, including the interval between ten o'clock in the evening and five o'clock in the morning. The States ratifying the Convention agree to bring the provisions of same into operation not later than July 1st, 1922. Provision is made for the suspension of this Convention in the case of India and Siam and for its non-application where there occurs an interruption of work which it was impossible to foresee and which is not of a recurring character, or where night work is necessary to preserve by course of treatment raw materials subject to rapid deterioration. In sixty days in each year, the night period may be reduced to ten hours in industrial undertakings, which are influenced by the seasons, and in all cases where exceptional circumstances demand it.

Employment of Children

The States ratifying the "Draft Convention Fixing the Minimum Age for Admission of Children to Industrial Employment" agree to bring its provisions into force not later than July 1st, 1922. Special provision is made in this Convention for Japan and India. In other countries no child under the age of 14 years shall be employed in any industrial undertaking except one in which only members of the same family are employed. Employers in industrial undertakings are required to keep registers of all persons under the age of 16 years employed by them, showing dates of birth.

The States ratifying the "Draft Convention Respecting Night Work of Young Persons Employed in Industry," agree to bring the provisions of the Convention into force not later than July 1st, 1922. It provides that young persons under 18 years of age shall not be employed during the night in any industrial undertaking other than one in which only members of the same family are employed, with the exception that those over the age of 16 may be employed on work which by reason of the nature of the process is required to be carried on continuously day and night, in the following industries:

(a) Manufacture of Iron and Steel.
(b) Glass Work.
(c) Manufacture of Paper.
(d) Manufacture of Raw Sugar.
(e) Gold Refining Reduction Work.

The term "night" signifies a period of at least eleven consecutive hours, including the interval between 10 o'clock in the evening and 5 o'clock in the morning. Provision for the relaxation of the restrictions regarding young persons between the ages of 16 and 18 is made in the case of emergency, and there are also special provisions covering lignite mines, the baking industry and work in tropical countries.

In addition to the Draft Convention, the following recommendations were made by the International Labor Conference to the States signatories to the Peace Treaty:

1. That measures be taken to prohibit the establishment of employment agencies which charge fees, and where such already exist to permit their operation under Government license only, and that all practical measures be taken to abolish such fee-charging agencies as soon as possible.
2. That the recruiting of bodies of workers in one country, with a view to their employment in another, should be permitted only by mutual agreement and after consultation with employers and workers in each country concerned.
3. That an effective system of unemployment insurance, operated either by the Government direct or through Government subventions, be established.
4. That the execution of all work undertaken by public authority be co-ordinated with a view to reserving such work as far as possible for periods of unemployment.
5. That reciprocity of treatment, as to the benefit of laws and regulations for the protection of workers and to the right of lawful organization, shall apply to foreign workers the same as to native workers.
6. That arrangement should be made for the disinfection of wool infected with anthrax spores, either in the country exporting such wool, or if that is not practicable, at the port of entry of the country importing such wool.
7. That in view of the danger involved to the function of maternity and to the physical development of children, women and young persons under the age of 18 years be excluded from employment in certain lead and zinc processes, and that the employment of women and young persons under 18 in certain other allied lead industries, be permitted only under certain enumerated and well defined restrictions.
8. That each State, which has not already done so, should establish as soon as possible not only a system of efficient factory inspection, but also in addition thereto a Government service especially charged with the duty of safeguarding the health of the workers, and which will keep in touch with the International Labor Office.
9. That each State that has not already done so should adhere to the International Convention adopted at Berne in 1906, on the Prohibition of the Use of White Phosphorus in the Manufacture of Matches.

Not satisfied with interfering with the private affairs of the countries represented at the Conference, the Conference at its final sitting passed a resolution directing the governing body of the International Labor Office to communicate the texts of the Draft Conventions to all the Governments of the States which are not members of the international labor organization, and to study the possible methods of inducing these States to embody the provisions of these Conventions in their domestic legislation. As a piece of unprecedented gall and impertinence, this resolution stands in a class by itself and ushers in a new era in the field of international relationships.

Of the outstanding subjects brought up at the Conference, which did not materialize into either Draft Convention or recommendations, the following are worthy of special note:

1. Abolition of private ownership of land.
2. International regulation of distribution of raw material.
3. International regulation of ocean freight rates.

(All advanced as cure-alls for unemployment.)

4. The recommendation to all Governments of the necessity of adopting suitable legislation in order to establish universal compulsory labor in keeping with individual attitudes and within the limitations required by a proper regard for health and human life.
5. In the Committee of Unemployment a determined effort was made to submit a draft convention providing that up to the age of 18 years young workers of both sexes would be required by law to receive a compulsory professional, complimentary, or technical education of at least 200 hours per year, times devoted to such courses to be allowed to such workers off their regular hours, without any decrease in pay therefor. This proposal was vigorously opposed by the Employers' Group, who compromised on a recommendation to the various States that measures be taken to provide facilities for technical education to all desiring to avail themselves of such. After the compromised recommendation was approved, the sponsors for a Draft Convention of more extended form asked that the subject be allowed to drop and that it should not be brought before the Conference. The subject was therefore not brought before the Conference and does not appear in the proceedings.

Convention Hurried Through

About the 15th of November it was decided that the Conference was to end November 29th, and it was only by steamroller methods that this was accomplished, and by the taking of votes in such a hurried manner that many did not understand what they were voting on. Even then, it was impossible to complete the work of the Conference and the consideration of next year's agenda was left in the hands of the governing body. Suggestions, however, had been put forward from day to day, and of these the following deserve special mention:

1. Introduction of a legal system of exemption from attachment of workmen's wages.
2. Prohibition of the use of the militia in labor conflicts or strikes.
3. Absolution of trade organizations from all responsibility for acts of individuals belonging to such organizations.
4. Legal recognition of trade unions as the only bodies with which to deal on all questions regarding skilled workers.
5. Application of 8-hour day to agriculture.
6. Appointment in each country of a representative of the International Labor Office to keep in touch with trade unions and see that decisions of the International Labor Conference are efficiently carried out.
7. Establishment of pensions for the aged and incapacitated.
8. The reduction of hours below that decided upon by the 1919 International Labor Conference.
9. Provision for a regular annual vacation for all employees.
10. Prohibition of the use of White Lead in house-painting operations.
11. Prohibition of the use of Mercury in felt hat making.

[A pamphlet containing the full text of the Convention and recommendations adopted by the International Labor Conference has been mailed to all members of the Association.]

News and Views of the Association

There will be found each month in this department a record of the various activities of the Canadian Manufacturers Association during the preceding month. The information is supplied to INDUSTRIAL CANADA officially, and all members of the Association are urged to acquire the habit of reading and checking over the contents of the department carefully in order to keep themselves posted on the work of the Association

Executive Council Meeting

The December meeting of the Executive Council was held at the Prince George Hotel, Toronto, on the afternoon of Thursday, December 18, with the first vice-president, Mr. J. S. McKinnon in the chair. The meeting was preceded by a luncheon arranged by the Toronto Branch, at which an illuminating address was delivered by Mr. S. R. Parsons, the representative of Canadian employers, on the work of the International Labor Conference at Washington. The large banquet hall of the Prince George was crowded and those present listened with the deepest interest to Mr. Parsons' report on the various aspects of the conference. The January meeting of Council will be held in Hamilton on January 28.

Membership Campaign Results

A short preliminary report on the progress of the National Membership Campaign was presented to the last meeting of the Executive Council on December 18, and this will be followed by a more detailed report at the January meeting, by which time results will be more complete. Up to the date of the report 134 new members had been secured in Ontario Division; 133 in Quebec Division; 54 in the Maritime Division; 28 in the Pacific Division and 10 in the Prairie Division. The campaign was handicapped in the Prairie Provinces owing to the Winnipeg election; the extraordinary coldness of the weather and the illness of the Secretary of the Division. A second campaign will be conducted in the Prairie Provinces early in the spring. At the beginning of the campaign, membership stood at 3,626. Adding the new members obtained up to the date of the council meeting, the total was 3,985.

Return of Information Obligatory

Attention of members to the necessity of furnishing desired information to the Dominion Bureau of Statistics is being directed by the Legal Department. Manufacturers, it is pointed out, have no option but to furnish the figures asked for. The Census and Statistics Act makes this quite clear.

The policy of the C.M.A. is to encourage manufacturers to complete these schedules as fully and accurately as practicable, not simpy because it is the law, but because the statistics compiled from the replies received serve a very useful purpose.

A year hence the same inquiry will be made of manufacturers, and they can simplify their work very greatly by remembering that fact and preparing for it.

All that is required of a manufacturer are answers that are reasonably correct. With respect to some items, there will be some manufacturers who cannot possibly give accurate answers—the error will sometimes be one way, sometimes another, but if all manufacturers give what they consider to be reasonably correct answers, the figures compiled will reflect the situation as regards Canada with sufficient accuracy.

It has come to our notice with respect to some manufacturers who have failed to return the schedules to the Dominion Bureau of Statistics, that the Department of Justice has been instructed to enter prosecutions. Presumably these prosecutions have not yet been commenced, but they will be, unless returns are made immediately.

Window Space in London

It will be of interest to Canadian manufacturers, who have sales representatives in London with samples, to know that Mr. F. G. Salter, European Traffic Manager of the Grand Trunk Railway, has very kindly placed the windows of the Grand Trunk office in Trafalgar Square at the disposal of Canadian manufacturers who may desire to use these windows for the purpose of exhibiting their goods.

The Association is also advised by the Canadian Mission in London that, following this splendid precedent of the Grand Trunk Railway, the Agent-General for the Province of Quebec, now states that he will be pleased to place at the disposal of Canadian manufacturers free of charge for a period of two weeks, one of the large windows in his offices.

In addition to these, it is understood that the Agent-General for British Columbia has made arrangements for British Columbia manufacturers to make exhibitions of their goods in a similar manner.

Specify Canadian Material

On instructions from the Executive Council, a circular was last month issued to the membership urging members to insist that material made in Canada be used as far as possible in all construction work over which they have any control. This is the result of complaints that have been made that architects and engineers, especially those who are citizens of other countries but are employed in Canada, are extending their habit of specifying foreign material in preference to Canadian material in the construction of buildings.

Marking Country of Origin on Imported Goods

Reporting to the last meeting of the Executive Council, the Tariff Committee recommended that the Dominion Government be asked to amend the Customs regulations so as to provide that each and every manufactured article imported into Canada from any other country, including countries of the British Empire, should be clearly marked so as to indicate definitely the country of origin.

It was recommended that the above regulation should be so worded as to strengthen the present Canadian Customs regulations as to "marking," by adding provisions similar to

the following regulation in the United States' Tariff Act of 1913, which deals with the same subject:

"F. Subsection 1. That all articles of foreign manufacture or production, which are capable of being marked, stamped, branded, or labeled, without injury, shall be marked, stamped, branded, or labeled in legible English words, in a conspicuous place that shall not be covered or obscured by any subsequent attachments, so as to indicate the country of origin. Said marking, stamping, branding, or labeling shall be as nearly indelible and permanent as the nature of the article will permit.

All packages containing imported articles shall be marked, stamped, branded, or labeled so as to indicate legibly and plainly, in English words, the country of origin and the quantity of their contents, and until marked in accordance with the directions prescribed in this section no articles or packages shall be delivered to the importer.

Should any article or package of imported merchandise be marked, stamped, branded, or labeled, so as not accurately to indicate the quantity, number, or measurement actually contained in such article or package, no delivery of the same shall be made to the importer until the mark, stamp, brand, or label, as the case may be, shall be changed so as to conform to the facts of the case.

The Secretary of the Treasury shall prescribe the necessary rules and regulations to carry out the foregoing provision."

Greater Production Committee

The Executive Committee has become strongly convinced of the necessity of increasing production throughout all branches of Canadian industry, and in order to determine on ways and means of accomplishing this result, has appointed a special committee to investigate and report. The chairman of this committee is E. Holt Gurney, and associated with him are H. A. Telfer and J. F. Mackay.

Imperial Press Conference

Arrangements are being made by a Committee of Canadian newspapermen, under the chairmanship of Lord Atholstan, of the *Montreal Star*, for the holding in Canada this summer of the Imperial Press Conference. This important gathering was to have been held in Canada in 1915, but the outbreak of war led to the cancellation of all plans and the postponement of the event until after the war was over. Leading journalists from all parts of the Empire will be present, and will tour the country from coast to coast. The Executive Committee, C.M.A., has recommended action by the Association along the lines of bringing information in regard to Canadian industries to the attention of the visitors.

Toronto Branch Membership Campaign

In connection with the National Membership Campaign, launched on December 1st, the Toronto Branch has added 60 new members, making the total membership of the Branch 901.

Niagara Falls Branch

A special meeting of the Niagara Falls Branch was held at the Clifton Hotel, Niagara Falls, on Tuesday, December 2nd. Messrs. J. E. Walsh, General Manager, and H. Macdonald, Secretary of the Division, were present as guests of the branch. Mr. E. R. Blew, the Chairman of the Niagara Falls Branch, welcomed the guests, and there was a large attendance of local manufacturers. Mr. Walsh gave an interesting summary of the revised organization of the Association, explaining that all subjects which are of interest to manufacturers are studied by the various committees, and that the Association is prepared to render advice concerning them. The chief purpose of the Association is to develop and extend the industrial activities of Canada.

H. Macdonald explained the diversity of the services rendered by the Legal Department, and gave striking instances of the development of exports from Canada of domestic products, during the last five years. Comparing 1913 and 1918, the percentage of increase has been:

For Mines	30	per cent.
Fisheries	100	"
Forests	10	"
Animals	300	"
Agriculture	275	"
Manufacturers	1,350	"

The meeting discussed the effect upon the local industries of the shortage of electrical energy, and finally agreed that the situation called for action of some kind on behalf of the Association, and Mr. Walsh promised that the matter would receive prompt attention.

The organization of the Niagara Falls Branch is now thoroughly efficient and representative of the local industries.

New Secretary of Quebec Division

An important change in the staff of the Montreal office of the Association took place during the past month. Mr. W. P. Hughes, who has served as secretary of the Montreal branch since March, 1917, and latterly as secretary of the Quebec Division, has resigned to engage in private business. On the recommendation of the Executive Committee of the Division, the Executive Committee of the General Association has engaged Mr. R. W. Gould as his successor.



R. W. Gould
New Secretary of the Quebec Division

The new secretary is a Nova Scotian, having been born in Guysborough in that province. For the past nine years he has been engaged in newspaper work throughout Canada, working in Halifax, N.S., St. John, N.B., Fort William and Port Arthur, and more recently on the writing staff of the *Montreal Star*. Prior to entering the newspaper game. Mr. Gould was in the passenger department of the Dominion Atlantic Railway and later employed in the Nova Scotia Legislative Council and Crown Lands Office. No Nova Scotian's education is patriotically complete without a taste of the sea, and for a time he was purser on a coastwise freight steamer running out of Halifax. His qualifications for his new position are therefore of the best.

Canadian Materials Should be Specified

Complaints have been made to the Executive Committee and Executive Council that architects and engineers, especially those who are citizens of other countries but who are employed in Canada, are extending their habit of specifying foreign material in preference to Canadian material, in the construction of buildings. The Executive Council has asked

the Special Committee of Toronto Branch, dealing with this subject, to take all necessary steps to counteract this tendency. Conferences are being held with associations representing engineers and architects in Canada, for the purpose of securing their co-operation.

In the meantime the Executive Council has instructed a circular to be sent to all members of the Association asking them to insist that material "Made in Canada" be used as far as possible in all construction work over which they have any control.

Report of the Insurance Department

The following are the various points on which the Department has been consulted during the months of October and November, the figures representing the number of inquiries under each subject:

	October.	November.
Standing of Companies	1	1
Sprinkler Equipments	2	1
Policy Wordings	13	1
Rates	11	9
Building Construction	5	4
Inspection Service	5	7
Co-Insurance Clause	3	..
Examination of Policies	..	1

Group Life Insurance

The Insurance Committee reported on December 18 that final action had been taken in regard to Group Life Insurance. Discussion on this subject was opened with the Government in letter from the Insurance Department of the Association dated September 19th, 1917, arising out of requests from several members for information.

Considerable objection to Group Life Insurance in Canada was raised by the friendly societies and leaders of various trade unions. The Insurance Committee continued to investigate the subject and to gather all possible information and statistics relating to it.

On April 24th, 1919, the following resolution of the committee was approved by the Executive Council:

"That the Insurance Committee proceed to take the necessary steps to have the Insurance Act amended so as to provide more satisfactorily for the transaction of Group Life Insurance in Canada."

In accordance with the above instructions received from council the committee asked the Department of Insurance to provide the necessary facilities for the transaction of Industrial Group Life Insurance in Canada. Various obstacles and objections to Group Life Insurance having now been removed it is possible for life insurance companies to insure groups of employees in this country without examination and at considerably lower rates than have been hitherto available. The Superintendent of Insurance, Department of Insurance, Ottawa, notified us under date of December 5th, 1919, that the following life insurance companies are authorized to transact Group Life Insurance in Canada:

Sun Life Assurance Company. Head Office, Montreal. President, T. B. Macaulay.

Ætna Life Insurance Company. Head Office, Hartford, Conn. Chief Agent in Canada, E. J. Christmas, Montreal.

Equitable Life Assurance Society of the United States. Head Office, New York. Chief Agent in Canada, Gerald F. Brophy.

Metropolitan Life Insurance Company of New York. Head Office, New York. Chief Agent in Canada, Wm. L. Scott, Ottawa.

Travelers Insurance Company of Hartford. Head Office, Hartford, Conn. Chief Agent in Canada, Hon. Geo. G. Foster, Montreal.

The Insurance Committee has also been advised by the General Superintendent of the Canada Life Assurance Company, Toronto, and also by the Life Underwriters' Association of Canada, that the Canada Life Assurance Company is now ready to transact Group Life Insurance. We are also informed unofficially that other Canadian insurance companies will file rates with the Dominion Government Department of Insurance in the near future.

The Insurance Committee believes that the only form of insurance which is practicable on the group plan is the One Year Renewable Term Insurance. All other forms are found to be too expensive to be borne by the employers alone. There is no equity under an annual term policy unless its renewal is maintained, which accounts for the low premiums charged. No medical examination is required of the employees providing a certain percentage, not less than 75 per cent. of the total employees of a single firm, in included in the insurance. The advantages of group insurance have been proved in the United States to be very great. It has the effect of doing away with a great many labor troubles, discouraging strikes and generally improving the morale of the employees. An employer of labor can to a large extent dictate the terms of the contract. He may insure employees for the amount of their annual wages or for an arbitrary amount. A favorite plan in the United States is to start the insurance at say $500 per employee and increase the amount by annual increments, thus providing a reward for continuous service. It is usual not to insure any employee until he has been a certain length of time, say three or six months, in the manufacturer's employment. This has been found to do away to some extent with the problems of casual labor. The rates charged are extremely low, but, of course, increase each year with the age of the individual employees. A great number of manufacturers in Canada are already considering this class of insurance, and it appears likely that before very long the majority of large employers of labor will protect their employees in this manner.

The Insurance Committee recommends that a circular be issued to members containing a synopsis of the information detailed above, drawing their attention to the fact that facilities for the transaction of Group Life Insurance are now available, and without any attempt to discuss the comparative merits of the various types of Group Life Insurance which are being offered by the companies.

Winnipeg Members Hear Report

At a meeting of members held at the Fort Garry Hotel, Winnipeg, on December 16, a report on the International Labor Conference at Washington was presented by Messrs. James G. Merrick and J. B. Hugg, K.C., who had acted as advisers to Mr. S. R. Parsons, the Canadian employers' delegate.

During the month of December the following applications for membership were received by the Prairie Division:—

FIRM	REPRESENTATIVE.
J. Murray & Co.	J. Murray, Winnipeg.
The Record Press	W. R. Thornton, Brandon.
Brandon Mattress Factory	W. A. Qua, Brandon.
Thomas Lewis Arnett	J H. Arnett, Regina.
National Drug and Chemical Co.	D. S. Cunningham, Winnipeg.
Brandon Harness Co.	J. H. Mathews, Brandon.
Thomas Lewis Arnett	Leslie Arnett, Winnipeg.
Anchor Elevator Co.	D. J. McGillivray, Winnipeg.
Currie Mfg. and Lumber Co.	W. J. Currie, Brandon.
Crescent Creamery Co.	Aaron Stoodley, Brandon.
Crescent Creamery Co.	Robert Barbour, Yorkton.
Winnipeg Telegram	M. McCulloch, Winnipeg.
Chevrolet Motor Co.	F. F. Guscott, Winnipeg.
The Humberstone Coal Co., Ltd.	Mrs. Beata Humberstone, Edmonton.

Off to Australia

One of the Association's most active members in Winnipeg, Mr. E. Parnell, left home at the end of November for an extended trip to Australia and the Orient. Prior to leaving he was the guest of the Winnipeg Branch at luncheon at the Royal Alexandra Hotel, at which function he was pre-

sented with a travelling bag. Mr. Parnell was elected chairman of the Winnipeg Branch at the annual meeting in May last, but resigned when he was named to represent the employers on the Industrial Disputes Board. He has been a member of the executive and chairman of the Legislative Committee of the Branch for some years.

Samples Are Invited

The Commercial Intelligence Department has received the following announcement, which may prove of interest to the membership:

"The Penang Chinese Chamber of Commerce, Penang, Straits Settlements, having a membership of nearly 600, is desirous of fostering trade between this port and countries abroad, and with this object in view, a separate room in the premises of the Chamber is being prepared for the display of samples and catalogues, which manufacturers abroad may send for the inspection of the Chinese merchants here. There is a tendency among the local capitalists to promote industries to which our local raw materials are adapted, and samples and catalogues of all kinds of manufactured goods may prove interesting and lead to business."

British Industries Fair

It is announced by F. W. Field, British Trade Commissioner, Toronto, that admission to the British Industries Fair to be held at London, Birmingham and Glasgow in February next, is by invitation only. Canadian buyers who propose to visit the Fair can obtain invitations from the British Trade Commissioners in Canada at Montreal, Toronto, and Winnipeg, respectively.

New Members Admitted During December

NAMES, ADDRESSES, AND PRODUCTS

THE following comprises a list of 121 applications for membership passed upon favorably at the December meeting of the Executive Council:

Alberta.

Redcliffe	Ross Clay Products Co., Ltd.	Brick.

British Columbia.

Vancouver	B. C. Box Co., Ltd.	Boxes.
Vancouver	Canadian Bag Co., Ltd., Percy Broadfoot	Additional Rep.
Vancouver	Dominion Rubber System (Pacific) Ltd., W. A. Allan.	Additional Rep.
Kelowna	Kelowna Saw Mill Co., Ltd.	Lumber and Boxes.
Vancouver	Northern B.C., Fisheries, Ltd.	Lumber and Boxes.
"	Pacific Box Co., Ltd.	Boxes, Pails.
Summerland	Summerland Lumber Co., Ltd.	Lumber and Boxes.

Manitoba.

Winnipeg	Winnipeg Upholstering Mfg. Co., Ltd.	Chairs, Couches.

New Brunswick.

Black's Har.	Connors Bros., Ltd.	Sardines and Sea Foods.
St. John	Portland Rolling Mills, Ltd.	Bars, Ship and Railway Spikes, Bolts.
St. John	Murray & Gregory, Ltd.	Lumber.
Sackville	Enterprise Foundry Co., F. A. Fisher.	Additional Rep.

Nova Scotia.

Sydney	Cross Fertilizer Co., Ltd., Andrew Livingstone.	Additional Rep.

Ontario.

Ayr	Hilborn Co., Ltd.	Agricultural Implements.
Brampton	Hercules Rubber Co., Ltd.	Auto Tires, Tubes.
Brantford	Cockshutt Plow Co., Ltd., Geo. Wedlake	Additional Rep.
Brantford	Slingsby Mfg. Co., Ltd., C. G. Cockshutt	Additional Rep.
Chippawa	Norton Company, A. E. Shero	Additional Rep.
Cobourg	Douglas Packing Co.	Cider and Vinegar.
Galt	Preston & Schwartz, Ltd.	Taps, Dies, etc.
Guelph	Guelph Paper Box Co.	Paper Boxes.
Guelph	Sherer Gillett Co., Ltd.	Display Counters.
Guelph	F. E. Partridge Rubber Co., Ltd.	Rubber Goods.
Hamilton	Canadian Drawn Steel Co., Ltd., Chas R. Brown.	Additional Rep.
Hamilton	Canadian Polishes, Ltd., H. C. Trenaman	Additional Rep.
Hamilton	Canadian Westinghouse Co., Ltd., C. H. O. Cook	Additional Rep.
Hamilton	Canadian Hart Wheels, Ltd., A. T. S. C. Meldrum	Additional Rep.
Hamilton	Dominion Glass Co., Ltd., J. W. King	Additional Rep.
Hespeler	Universal Lightning Rod Co.	Lightning Rods and Fixtures.
Kingston	Hanson. Crozier & Edgar	Printers.
Leamington	Rock City Tobacco Co., Ltd., Olivier Drouin	Additional Rep.
Mt. Dennis	Bettys Limited	Jams.
Oshawa	Williams Piano Co., Ltd., H. P. Bull	Additional Rep.
Ottawa	A. J. Alexandor, Ltd., A. E. Alexandor	Additional Rep.
Ottawa	Travers Aprons, Ltd.	Aprons.
Owen Sound	Richardson, Bond & Wright, Ltd.	Blank Books, etc.
Peterborough	Albion Knitting Co., Ltd.	Jerseys, Bathing Suits.
Peterborough	Bon Marche Mfg. Co., Ltd.	Ladies' Wear and Fancy Goods.
Peterborough	Gemmell & Co.	Whitewear.
Peterborough	Lavoie Knitters.	Rib Hose and Sweaters.
Peterborough	Peterborough Lumber Co., Ltd.	Lumber, Shingles.
Peterborough	Peterborough Review Co., Ltd.	Record Books, Boxes.
Peterborough	Peterborough Cereal Co., Ltd., B. H. Myers.	Additional Rep.
Peterborough	A. Stewart.	Woolstock, Carding.
Plattsville	Plattsville Milling Co.	Flour and Feed.
Port Arthur	Port Arthur Pulp & Paper Co.	Sulphite Pulp.
Port Hope	Wm. Hood.	Hosiery.
S. S. Marie	McPhail & Wright Construction Co.	Sash, Doors, Trim.
St. Catharines	Canada Hair Cloth Co., Ltd., J. Ivan McSloy	Additional Rep.
Sandwich	Fisher Wilkie, Ltd.	Engines and Castings.
Toronto	Aked & Co., Ltd.	Worsted Yarns.
Toronto	Alco Mfg. Co., Ltd.	Dresses.
Toronto	Barber-Ellis, Ltd., F. M. Ellis.	Additional Rep.
Toronto	Berger Tailoring Co., Ltd.	Clothing.
Toronto	C. J. Bodley, Ltd.	Cake and Biscuits.
Toronto	Boeckh Co., Ltd., Chas. B. Boeckh.	Additional Rep.
Toronto	R. E. Jamieson, of Canadian Consolidated Rubber Co., Ltd.	Additional Rep.
Toronto	Canadian General Electric Co., E. K. W. Wedd	Additional Rep.
Toronto	Canadian Post Card Co.	Photographs.
Toronto	Carter Welding Co. of Toronto, Ltd.	Oxy-acetylene welding.
Toronto	Central Casket Co., Ltd., R. Cooper	Undertakers' Supplies.
Toronto	F. Colyer Mfg. Co.	Tools, Dies, Motors.
Toronto	Cooke & Boulton	Floor Wax & Varnishes.
Toronto	Counter Costume Co., Ltd.	Misses' Dresses.
Toronto	Davis Slate & Mfg. Co., Ltd.	Electrical Slate for Switchboards.
Toronto	Diamond State Fibre Co., Ltd.	Fibre Sheets, Rods.
Toronto	Engravers Metal Co., Ltd.	Engravers' Plates.
Toronto	Excelsior Electric Dairy Machinery, Ltd.	Cream Separators and Electric Motors.
Toronto	Frankel Mfg. Co.	Dresses and Skirts.
Toronto	General Phonograph Corp'n., Ltd.	Phonograph Motors.
Toronto	A. C. Gilbert Menzies, Co., Ltd.	Steel Construction Toys and Fancy Goods.
Toronto	The Globe, Wm. Findlay	Additional Rep.
Toronto	Ideal Bread Co.	Bread.
Port Hope	Ideal Clothing Co.	Mens' and Boys' Pants.
Toronto	Julius, Cohen & Josephy, Clifford Jackson	Additional Rep.
Toronto	Lea-Trimble Mfg. Co.	Children's Furniture.
Toronto	Litho-Print, Ltd.	Lithographing, Printing.
Toronto	J. M. Loose & Sons, Ltd.	Piano Actions and Keys.
Toronto	Macdonald Mfg. Co., W. T. Bell.	Additional Rep.
Toronto	T. Milburn Co., Ltd.	Medicines.
Toronto	Moore-Telford, Ltd.	Printing and Type.
Toronto	National Lithographing Co.	Lithography.
Toronto	J. B. Nicholson, Ltd.	Concrete Products.
Toronto	Ontario Soap & Oil Co.	Soft and Liquid Soaps.
Toronto	Peerless Artificial Stone, Ltd.	Artificial Stone.
Toronto	Penfound Varnish Co.	Varnishes, Shellacs.
Toronto	Richards Glass Co., Ltd.	Druggists' Glassware.
Toronto	Rockland Cocoa & Chocolate Co., Ltd.	Chocolate and Cocoa.
Toronto	Sharples Separator Co.	Cream Separators.
Toronto	Standard Lithographic Co. of Can.	Lithographing.
Toronto	Star Specialty Co.	Iron Specialty Work.
Toronto	W. H. Sumbling Machinery Co.	Laundry Machinery.
Toronto	Sunbeam Chemical Co. of Can. Ltd.	Rit Dye.
Toronto	Telfer Bros., Wm. Latimer	Additional Rep.
Toronto	H. C. Tidman & Co.	Steel Clipper.
Toronto	Toronto Envelope Co., Ltd.	Envelopes.
Toronto	Union Iron & Metal Co., Ltd.	Wrought Iron Washers.
Toronto	Union Iron & Metal Co., Ltd., A. Davis	Additional Rep.
Toronto	Wilcox Engraving Co.	Photo Engravings.
Toronto	E. J. Woodison Co., Ltd.	Foundry Facings.
Trenton	Frankford Canning Co., Ltd.	Canned Goods.

Trenton	Durham Canning Co., Ltd.	Canned Goods.
Walkerville	F. W. Jeffress, Ltd.	Extracts and Grocers' Specialties.
Walkerville	Square D. Company	Electric Switches.
Walkerville	Square D. Company, C. H. Keeling	Additional Rep.
Wallaceburg	Dominion Glass Co., Ltd., T. B. Dundas	Additional Rep.
Welland	Canada Foundries & Forgings, Ltd., B. J. McCormick	Additional Rep.
Welland	Metals Chemical, Ltd., R. L. Charles	Additional Rep.
Woodstock	Peerless Cereal Mills, Ltd.	Rolled Oats.

Prince Edward Island.

Georgetown	Eastern Canneries, Ltd.	Canned Lobsters.

Quebec.

Buckingham	Quebec Graphite Co., Ltd.	Dry Lubricants.
Montreal	C. S. Allen & Co.	Candy and Grocers' Supplies.
Montreal	Thos. V. Bell, Ltd., Jas. K. Thompson	Additional Rep.
Montreal	Canadian Cottons, Ltd., Alex. Bruce	Additional Rep.
Montreal	Dominion Glass Co., Ltd., M. Offer, A. H. Grier.	Additional Rep.
Montreal	Julius L. Gittleson & Co,	Men's Waterproof.
Montreal	Holland Varnish Co., Ltd., H. W. Thorp (Addtl. Rep.)	Varnishes, Enamels.
Montreal	The Redmond Co., Ltd.	Furs.
Three Rivers	Wabasso Cotton Co., Ltd., W. G. E. Aird (Addtl. Rep.)	Fine White Cottons.

Activities of the British Columbia Division

By H. DALTON
Secretary, British Columbia Division

THROUGH recent additions, the membership of the British Columbia Division now comprises 147 manufacturers in all parts of the province. The services and policies of the Association are gradually becoming better known and appreciated, and manufacturers are showing an increasing willingness to support the Association. The following is a list of new members recently admitted:—

British Columbia Box Co., Ltd., Vancouver.
Dominion Rubber System, Ltd., Vancouver.
Pacific Box Co., Ltd., Vancouver.
Northern B.C. Fisheries, Ltd., Vancouver.
Beaver Cove Lumber & Pulp Co., Vancouver.
Stanley Watson Glove Co., Vancouver.
W. H. Malkin Co., Ltd., Vancouver.
Mrs. Haine, Ltd., Vancouver.
Timms, A. H., Vancouver.
Almonds, Ltd., Vancouver.
McClary Manufacturing Co., Ltd., Vancouver.
Kelly Douglas & Co., Ltd., Vancouver.
Robertson & Hackett, Ltd., Vancouver.
Canadian Bag Co., Ltd., Vancouver.
Vancouver Lumber Co., Ltd., Vancouver.
Kelowna Saw Mills Co., Ltd., Kelowna.
Summerland Lumber Co., Summerland.
Dalziel Box Co., Victoria.
Diggon Printing Co., Victoria.
Lemon Gonnason Co., Ltd., Victoria.
Moore-Whittington Lumber Co., Victoria.
Sidney Rubber Roofing Co., Ltd., Sidney.
Crawford Bros., Kelowna.

Fuel Oil Supplies for Fisheries

For a number of years it has been a matter of great inconvenience to British Columbia fishing companies having certain vessels acting as tenders to their fishing fleets, being unable to ex-warehouse from customs bonds, gasoline and distillate for the use of the ships actually engaged in the catching of fish, as it was necessary for these latter vessels, working sometimes at great distances from customs ports, to lose considerable time in proceeding to one of these ports to obtain fuel supplies.

The Tariff Department of the Association, acting on representations made recently by this Division, have procured from the Department of Customs an order permitting masters of vessels acting as tenders to carry these fuel supplies for the fishing boats. The fishing interests of British Columbia express themselves as extremely gratified with this action on the part of the Association, as numerous representations to the Department of Customs from other sources have heretofore been unproductive of results.

Canadian Mercantile Marine

Messrs. R. C. Vaughan and D. O. Wood, vice-president and traffic manager respectively of the Canadian National Railways, were recently visitors to the Vancouver office. While in Vancouver, interviews were arranged for them with representatives of the fish and fruit industries of British Columbia, and with various prominent shippers. As a result of these interviews, it was settled that the four steamers to be placed on the Canadian-Australian route will be equipped with adequate refrigerator space, to handle various perishable commodities from British Columbia, for which there is a large market in the Antipodes, but from which the shippers here have been almost entirely excluded owing to their being unable to secure adequate space on the present line of steamers.

Canadian Trade Commissioners

Messrs. Egan, Ross and Beddoe, while in Vancouver, recently made their headquarters at the Association's offices. Many interviews were arranged for them with various gentlemen interested in trade with the countries in which Messrs. Egan, Ross and Beddoe are the Canadian representatives. Before their departure they expressed themselves as highly gratified with the facilities placed at their disposal, and the great amount of information they had gathered as to the possibilities of trade from this coast to Australia and New Zealand.

British Columbia Box Manufacturers

The box manufacturers of British Columbia, at a meeting held recently in Vancouver, decided to form a Section of this Division, and this Section has now been organized, comprising the following firms:—

Armstrong Saw Mill, Armstrong.
B.C. Box Co., Ltd., Vancouver.
B.C. Manufacturing Co., Ltd., New Westminster.
Brunette Saw Mills Co., Ltd., New Westminster.
Cameron Lumber Co., Ltd., Victoria.
Crawford Bros., Kelowna.
The Dalziel Box Co., Victoria.
Kelowna Saw Mills Co., Ltd., Kelowna.
Lemon Gonnason Co., Ltd., Victoria.
Northern B.C. Fisheries, Ltd., Vancouver.
Pacific Box Co., Ltd., Vancouver.
Summerland Lumber Co., Ltd., Summerland.

The chairman of the Section is Mr. R. B. Sharpe of the Pacific Box Co., and the vice-chairmen, Mr. D. Lloyd-Jones of the Kelowna Saw Mills Co., and Mr. W. B. Mitchell of the Cameron Lumber Co., Victoria. The chairman of the Local Committee is Mr. P. J. McMurphy of the B.C. Manufacturing Co., New Westminster, and of the Export Committee, Mr. H. C. Airth of the Brunette Saw Mills Co.; Mr. J. H. Mc Donald of the B.C. Manufacturing Co. acts as treasurer.

Maximum Wage Regulations for Fruit and Fish Industries

The Minimum Wage Board of British Columbia held sittings during December to fix minimum wages, hours of labor, working conditions, etc., in connection with the fruit and fish industries of this province. Following the hearing of evidence from representatives of fishing concerns and cannery plants, a minimum wage scale was fixed for women over 18 years of age employed in fish-curing plants of $15.50 per week. New employees are to receive $12.75 for the first four months.

$13.75 for the second four months, and $14.75 for the third four months, after which the $15.50 minimum will apply. These rates are for an eight-hour day or forty-eight hour week.

Owing to the uncertainty of conditions, also because of the shortness of the season in the canning branch of the fish industry, no minimum wage or restrictions as to hours are set for that class of work.

The Minimum Wage Board held two sessions in regard to the fruit industry, one at Kelowna on December 12th, and another in Vancouver on December 19th, as a result of which a minimum wage of $14.00 for females engaged in this industry, 18 years of age and over, based on an eight-hour day or forty-eight hour week. Beginners will be paid at the rate of $10.00 for the first month, $11.00 for the second, and $12.00 for the third, after which the minimum wage must be paid. This ruling applies to all classes of female labor in the fruit industry except fruit-pickers.

An important concession obtained by representatives of employers was permission from the Minimum Wage Board to work for a period of ninety days in any one season a maximum of sixty hours per week, for which female employees will be paid $18.00 per week. Employers are allowed to select the portion of the season in which they prefer to work these extended hours; this being necessary owing to fruit-packing establishments in different parts of the province having to deal with different classes of fruit, some of which come on the market much earlier than others.

Ontario Division's Organization is Completed

BY H. MACDONALD
Secretary Ontario Division, C.M.A.

THE Ontario Division Executive convened in the Association's offices on the 18th current and completed the organization, the officers and committees being:

Chairman.

Geo. H. Douglas.....Thornton & Douglas, Ltd., Hamilton.

Vice-Chairman.

J. R. Shaw.....Canada Furniture Mfrs., Ltd., Woodstock.

Executive Committee.

George Brigden .....Brigdens, Ltd., Toronto.
C. H. Carlisle .....Goodyear Tire & Rubber Co., Ltd., Toronto.
Gordon C. Cockshutt...Slingsby Mfg. Co., Ltd., Brantford.
W. Cowan .....Cowan & Co., Ltd., Galt.
T. J. Dillon .....Canada Foundries & Forgings, Welland.
H. W. Fleury .....J. Fleury's Sons, Aurora.
E. J. Freyseng.....Freyseng Cork Co., Ltd., Toronto.
Robert Gray .....Wm. Gray & Sons Co., Ltd., Chatham.
Sam Harris .....Harris Lithographing Co., Ltd., Toronto.
Fred Hatch .....The Hatch Mfg. Co., Whitby.
Wm. Inglis .....John Inglis Co., Ltd., Toronto.
G. M. McGregor .....Ford Motor Co. of Can., Ltd., Ford.
John Millar .....Lever Bros., Ltd., Toronto.
T. F. Monypenny .....Imperial Varnish & Color Co., Ltd., Toronto.
J. F. Paige.....Pt. Arthur Shipbuilding Co., Ltd., Pt. Arthur.
Thomas Roden .....Roden Bros., Ltd., Toronto.
H. J. Waddie .....Canadian Drawn Steel Co., Ltd., Hamilton.
Sam J. Williams .....The Williams, Greene & Rome Co., Ltd., Kitchener.
A. W. White .....The George White & Sons Co., Ltd., London.
Frank Whitton .....Steel Co. of Can., Ltd., Hamilton.

Chairmen of Ontario Branches (Members Ex-Officio).

W. C. Coulter .....Booth-Coulter Copper & Brass Co., Ltd., Toronto.
Geo. H. Douglas .....Thornton & Douglas, Ltd., Hamilton.
(Note: Mr. Douglas is Division Chairman.)
E. R. Blew .....Spirella Co. of Can., Ltd., Niagara Falls.
C. H. Waterous .....Waterous Engine Works Co., Ltd., Brantford.

SUB-COMMITTEES.

Educational Committee.

George Brigden .....Brigdens, Ltd., Toronto.
E. J. Freyseng .....Freyseng Cork Co., Ltd., Toronto.
T. F. Monypenny .....Imperial Varnish & Color Co., Ltd., Toronto.
H. W. Fleury .....J. Fleury's Sons, Aurora.
G. M. McGregor .....Ford Motor Co. of Can., Ltd., Ford.
Gordon C. Cockshutt ..Slingsby Mfg. Co., Ltd., Brantford.
Frank Whitton .....Steel Co. of Can., Ltd., Hamilton.
H. J. Waddie .....Canadian Drawn Steel Co., Ltd., Hamilton.
F. R. Close.....The Duncan Lithographing Co., Ltd., Hamilton
R. C. Fearman .....F. W. Fearman Co., Ltd., Hamilton.

Legislation Committee.

Sam Harris .....Harris Lithographing Co., Ltd., Toronto.
T. F. Monypenny .....Imperial Varnish & Color Co., Ltd., Toronto.
Thos. Roden .....Roden Bros., Ltd., Toronto.
H. J. Waddie .....Canadian Drawn Steel Co., Ltd., Hamilton.
F. S. Hodgins .....The Williams, Greene & Rome Co., Ltd., Kitchener.
A. W. White .....The George White & Sons Co., Ltd., London.
C. H. Waterous .....Waterous Engine Works Co., Ltd., Brantford.
A. L. Page .....Frost Steel & Wire Co., Ltd., Hamilton.
Geo. C. Coppley .....Coppley, Noyes & Randall, Ltd., Hamilton.
George Day .....M. Beatty & Sons, Limited, Welland.

Transportation and Power Committee.

C. H. Carlisle .....Goodyear Tire & Rubber Co., Ltd., Toronto.
Gordon C. Cockshutt...Slingsby Mfg. Co., Ltd., Brantford.
W. Cowan .....Cowan & Co., Ltd., Galt.
T. J. Dillon .....Canada Foundries & Forgings, Ltd., Welland.
Robert Gray .....Wm. Gray Sons Co., Ltd., Chatham.
Fred Hatch .....The Hatch Mfg. Co., Ltd., Whitby.
J. F. Paige .....Pt. Arthur Shipbuilding Co., Ltd., Pt. Arthur.
H. J. Waddie .....Canadian Drawn Steel Co., Ltd., Hamilton.
T. D. McFarlane .....McFarlane-Douglas Co., Ltd., Ottawa.
J. Sinclair .....The Barrie Tanning Co., Ltd., Barrie.
E. R. Blew .....Spirella Co. of Can., Ltd., Niagara Falls.
C. H. Waterous .....Waterous Engine Works Co., Ltd., Brantford.
W. R. Dunn .....International Harvester Co. of Can., Ltd., Hamilton.
F. W. Dean .....Steel Co. of Can., Ltd., The, Hamilton.
Henry Bertram .....The John Bertram & Sons Co., Ltd., Dundas.

Publicity Committee.

Geo. Brigden .....Brigdens, Ltd., Toronto.
C. H. Carlisle .....Goodyear Tire & Rubber Co., Ltd., Toronto.
Wm. Inglis .....John Inglis Co., Ltd., Toronto.
John Millar .....Lever Bros., Ltd., Toronto.
W. C. Coulter .....Booth Coulter Copper & Brass Co., Ltd., Toronto.
W. R. McNeil .....Bird & Son, Limited, Hamilton.
Russell T. Kelley .....John Bull Manufacturing Co., Hamilton.
John C. Notman .....The McKinnon Dash Co., St. Catharines.
E. Worth .....Bonner-Worth Co., Ltd., Peterboro.
Fred. H. Gray .....The Ives Modern Bedstead Co., Ltd., Cornwall.

Associate Members.

J. F. MacKay.....Willys-Overland, Ltd. (Chairman Publishing Committe), Toronto.
J. J. Gibbons .....J. J. Gibbons, Ltd. (General Advertising Agents), Toronto.

134 New Members Added

The Secretary reported that in the National Membership Campaign, the Division played a creditable part—134 members being added to the list and the campaign is being continued. The executive took up consideration of a report received from the Niagara Falls Branch, with respect to a decrease of the supply of electrical power to manufacturers in the Niagara Falls district, causing considerable changes of manufacturing methods and inconvenience to employers. It was moved by Mr. W. C. Coulter, seconded by Mr. Arthur White, and carried:

"That the Secretary issue a circular and questionnaire to the members in the Ontario Division to ascertain the extent to which they are affected by decreased supply of power and for suggestions, and further, that a representation be made to the Hydro Commission suggesting that no further contracts be entered into, until the present situation is relieved."

The matter was then referred to the Divisional Transportation and Power Committee, with powers.

The Executive resolved to make appropriate representations to Premier Drury and the Attorney-General, urging the claims of the employers to representation on the Ontario Workmen's Compensation Board.

Some Canadian Reconstruction Problems*

Progress of Canada Both Agriculturally and Industrially Has Been Marvelous, but the Great Underlying Principle of Reconstruction Should Be the Creation of a Better and Improved State of Society

By SIR HENRY DRAYTON
Minister of Finance, Dominion of Canada

THE reconstruction problems of every country are diverse and many. To attempt to deal with them generally within the compass of a brief paper would be entirely impossible unless the treatment given were indeed superficial. Viewed from many aspects, the problems of reconstruction are moral rather than material. In so far as the material resources are concerned, Canada has no need for concern. Over and above all present agricultural, mining, lumbering, and fishing activities the untouched natural resources of the country remain in volume and indeed in greater volume than they have up to the present been utilized. While it is true that Canada's debt to-day stands approximately at a total of two billions of dollars with heavy resultant interest charges; while it is true that the claims of the returned soldier, costs of pensions and disability claims are heavy, and will all in the nature of things continue for many years to come, it is also true that the country and the people as a whole are infinitely better off than they ever were before.

Significance of Victory Loan

You know we have just finished in Canada our final Victory Loan drive. Our Victory Loan drives are something very similar to your Liberty Loan drives. We have had altogether six war loans. The first three we called war loans, and then we got the idea that the name Victory Loan was the proper thing, for we were almost sure it was going to be a victory, anyway, and so we started calling them the Victory Loans, and I think that perhaps what has happened in connection with this last drive is something which gives you the most recent and best evidence of what I am telling you as to Canada's position in this paper, because the success of our loans, the amount of popular support, the support from the people generally, not merely the support of the financial interests but the support of all the people to these loans has constantly increased. The first loan was a comparatively small loan. It was a new thing for Canada to try and raise money within her shores, absolutely new. She had to get money in England or in New York, chiefly in England. She was a borrowing country, and our first loan was a small one, $100,000,000, and it was approached with a great deal of fear and trembling, and now at the wind-up of the war, now that the war fervor is entirely over, at the time of the peak with a popular loan last year netting $610,000,000, this year the Canadian people have subscribed the sum of $673,000,000 for the purpose of wiping up and cleaning up Canada's war obligations, and to provide a national working capital. So I think I am safe in claiming that the country as a whole is better off than it ever was before.

It took the war to discover for us just what could be done and to realize to some extent, perhaps only to a small extent, the possibilities and greatness of the country.

To illustrate, in the year 1913 our export of foodstuffs and fodders amounted to $194,930,254, and at the close of the last fiscal year to $467,625,311. Our manufactured exports in 1913 amounted to $43,692,708, and at the end of the last fiscal year to $549,284,268.

The progress of Canada, both agriculturally and industrially, has been marvellous. But the great underlying principle of reconstruction as it appeals to us generally is rather that reconstruction as it appeals to us generally is rather that reconstruction which will make for a better and improved state of society as such, a reconstruction which, while preserving the right of initiative and proper incentive for effort, will at the same time to the fullest extent possible afford equality of opportunity for everybody.

There is, however, a material question which in the conduct of our public business of the future I venture to think you, firstly, as presidents of life insurance companies and, secondly, as American citizens, are interested in. In the first instance, as life insurance presidents I would confidently claim that you have a real interest in Canada and a constantly increasing interest. I note that in 1898 your insurance companies had in force in Canada $105,708,154; in 1908 the amount of business in force was increased to $193,087,126; and the extent of that business of later years has been much more rapidly increased, as your business in force in Canada in 1918 amounted to the large sum of $619,261,713. I think, Mr. Chairman, that is an increase you would look upon with a good deal of satisfaction. Out of a total insurance in force at that time of $1,785,061,273 your companies had over one-third of the total business.

Canadian Investments Sound

But not only are you interested in the volume of business, but you are also interested in your Canadian assets which have grown with the growth of the business and which I am pleased to understand have formed remunerative investments. These assets in 1898 were $23,563,824; in 1908, $46,762,534; and in 1918, $98,607,188. So as insurance presidents you have a very real interest in Canada. One of the greatest aids to sound national status is that each and every citizen to the fullest extent possible should have a personal direct property interest in his country. Outside of a Canadian 5½% Victory Bond, which of course I place higher than any other security—a security of greater value not only to the citizens but to the country than any other—there is no way in which our average citizen can make his first investment easier than by investing twenty or thirty dollars in a thousand dollar policy. Life insurance indeed tends to stabilize financial and industrial conditions. It tends to, and where adopted in large measure, prevents distress and suffering and constitutes a real protection to the worker and to his dependents.

I feel that to-day we require the fullest extension, the fullest production, the greatest amount of useful work and the practice of economy and thrift everywhere. Life insurance agents are particularly at home in preaching thrift—that essential pre-requisite to national reconstruction. Personally, I well recollect that the first money I ever saved was that rendered necessary by a twenty-pay life insurance

* An address delivered at the Thirteenth Annual Meeting of the Association of Life Insurance Presidents in New York City.

policy. May your endeavors to make Canadian people money-savers be most successful.

Very intimately connected with the problem of reconstruction is the bettering of conditions of public health. This is a matter in which the insurance companies are particularly interested, and as I understand it many of you have already commenced an educational compaign amongst your policy-holders. You are in a position, with your efficient organizations, to aid very largely in propaganda for better health conditions, of which both our countries are in need. Your efforts in this regard will be doubly pleasing to you, as while bettering and aiding the living conditions generally to great national benefit you will also be securing a greater longevity in the lives insured, bettering your risks, and increasing the profits of the policy-holders and of your shareholders.

Canadians Under-Insured

There is much room for a great advance in insurance in Canada. Assuming a population of eight millions, I think it is a little under at the present moment, the life insurance in force in Canada to-day is but approximately $225 per capita. Canadians are under-insured and life insurance companies have a most useful public task ahead of them in bringing up the average protection for the families of the workers of Canada, but increased insurance like every other good thing depends upon ability to pay premiums, depends upon prosperity. I was just talking about reconstruction. I had an idea, you know—it is not altogether remiss, and I hope you won't think it is—we have done so many things together, we have had so many common undertakings in the last few years, our job has so often been a mutual job, that I do not think it will be taken amiss if I refer to something which it seems to me is not altogether a Canadian question of reconstruction, but one in which you are also interested. It, I think, can be solved properly by mutual action. While Canada is prosperous, the question of the matter of exchange between our respective countries is something that I am sure you do not view with complacency. Your insurance premiums are paid in Canadian dollars, and as a result of the trade balance existing between the countries the Canadian dollar is at the moment at a discount, and a serious discount when the value of the Canadian dollar, the prosperity and assets of the country are considered. The depreciation, while very real, is merely the effect of present trade balances and does not reflect in the slightest upon the intrinsic value of Canada's obligations. The depreciation of the Canadian currency in New York funds is simply owing to the fact that we do too much business with you and you do too little business with us.

I wonder if the extent of Canada's purchases in the United States are realized. In South America you have a whole continent, you have been doing business with that continent for many years, you have there operating trade commissions and trade representatives and, I think I may fairly say, have covered that field with characteristic American energy. Your statistics show that your total trade with all South American countries amounted for the year 1918 to the sum of $881,977,051, with a trade balance against your country of $252,859,463. In the same year your business with Canada amounted to $1,216,744,389, and it resulted in a favorable trade balance of $344,235,455 to your country. In 1919 the United States business with all South American countries was $969,276,605, the balance of trade against you again being $167,473,303. On the other hand, for the same year with Canada your total trade amounted to $1,282,677,849 and the balance of trade in your favor amounted to a sum no less than $344,768,213. With such a balance against us and with the further fact that Canada is doing some business overseas, settlement of which is ordinarily made in New York in credit instead of for cash, the reason why your Canadian premiums only net you approximately 95 cents on the dollar in New York funds is very readily apparent. While our respective countries have always very largely traded one with the other the adverse balance of trade used not to tell so heavily upon Canada. In 1910 the adverse balance was $106,888,088 and in 1915 it was $110,289,650 and at these times, of course, Canada instead of selling abroad for credit was selling overseas for cash, and the amounts of those adverse balances with your country were much more than made up by the exchange coming from overseas countries, payable to New York and going on to Canada.

That Canada is a very large purchaser in the United States and that the tendency to purchase is increasing is made very clear by the exhibit of the percentage of imports in comparison with Canada's total imports. During the fiscal year ending March 31, 1913, before the war, our imports from the United States amounted to 65,03% of the whole, but during the fiscal year ending March 31, 1919, that percentage had grown to 81.50. On the other hand, the percentage of purchases made by the United States in Canada in comparison with our total exports not only has not increased in a like ratio but has declined, as the percentage of Canadian exports to the United States in comparison with our total exports for the year ending—take the same year—March 31, 1913, was 39.27, and for the year ending March 31, 1919, while ours had increased as I stated from 65 to 81, yours dropped for the same year from the 39 plus I have given you to 37.

It may be suggested that the best way of restoring the full value to your Canadian premium would be for Canada to do less purchasing in the United States, but I have the idea that this solution of the subject is not one which would commend itself to you as American citizens. We want to do as much business as possible with you and I further have an idea you want to do as much business as possible with us. I think we all realize that two of the very necessary essentials in any proper re-establishment are firm currencies and standard exchanges. I am quite sure that you would much sooner see the exchange situation righted by additional American purchases in Canada rather than decreased Canadian purchases in the United States. Temporarily, and from time to time, these adverse balances may be easily rectified by the investment of America's large surplus reserves in Canada, and this solution is one which is probably as much in the hands of the presidents of great American companies as in anybody's. The field for investment in Canada is very large. There is still great room in Canada for development.

Reconstruction a Big Problem

You have been so kind as to ask me to speak on some Canadian problems. The problem that I am leaving with you is not alone a Canadian problem. It is a problem in which both of our countries are interested. It is a problem further which is one of the most urgent ones confronting us and one which I am confident your Association with its tremendous resources can do much in assisting to remedy. My apology for introducing it, if any apology is needed, is that it is a problem in which you as insurers of Canadian lives as well as all sellers of American goods to Canadian purchasers are deeply and vitally interested.

The problems of the North American continent will have to be worked out by our respective countries, and to an ever-increasing degree the problems of the world will be solved by your great Republic and the confederated nations of the British Empire. With a history, with laws, interests, traditions and aspirations so largely common, the essential combined effort for civilization and humanity ought to be, and I am confident will be, harmonious and effective.

Canadian Bankers Discuss Financial Aspects

Caution Needed in Approaching the Uncertainties Lying Ahead—A Testing Time is Coming, which will Try Out the Strength of Canadian Business—Ability of the Country to Meet the Situation is Assured

A SYMPOSIUM

FINANCIAL aspects of the present industrial situation are touched upon by several leading Canadian bankers in the following symposium of opinion. Running through practically all their comments is a note of caution. Up to the present time, with the strong demand for all commodities and with resultant high prices, it has been possible to conduct business along profitable lines. Inevitably, however, there must come a time when prices will begin to recede and then the strength of Canada's business and industrial undertakings will be tested. Some bankers believe that this testing time is getting near and so they urge the exercise of caution.

More than one reference is made to the immense debt which the Canadian people are now bearing, a debt exceeding two billions of dollars. To meet the interest charges on this debt as well as to provide for other obligations, which must be shouldered by the country, a very large sum of money must be provided annually. The advice proferred by the bankers is the building up of a great export trade, coupled with such extensive production at home that the necessity for importing goods will be reduced.

INEVITABLE DECLINE IN PRICES NEARER

By Sir F. Williams-Taylor
General Manager, Bank of Montreal

The economic and financial difficulties that confronted the country during the war have since changed in nature, but have not disappeared by any means. There is an aftermath of problems which Canada must face and in which bankers are vitally concerned. At present there is great trade activity; yet our national debt grows apace, with attendant ills. Therefore, even with a full measure of faith in our country, I find the near future difficult to visualize. We derive a measure of consolation in comparing our lot with that of countries worse off than our own, but contiguity and ambition direct our eyes towards that country to the south which has benefited so vastly by the war.

It is no reassuring reflection that the United States has already reduced its war debt by some $800,000,000, while we confront an increase of $600,000,000. for the current year. It seems obvious, however, that though fate has treated the two countries differently, any prosperity experienced in the United States must be reflected in Canada. Our true comfort, as well as our pride, is that the Dominion did its duty in the great war as a part of the British Empire. No Canadian would have it otherwise, and therefore we face the cost with stout hearts and the future with a watchful serenity.

The practical evidence of Canada's fortunate trade conditions lies in the fact that commercial failures for the twelve months ended 31st of October were 766, as compared with 904 for the previous corresponding period, and with 1,669 in 1912-1913.

On that outstanding subject, the high cost of living, I might state my belief that the inevitable decline in prices is at least nearer, and it is to be hoped that the delay meanwhile is not lulling dealers into the erroneous belief that the standards of these last few years will continue indefinitely. Misconception on this point would constitute a menace alike to borrower and banker. It seems certain that food prices will drop presently and that all commodities must decline in price; therefore, great care and scrutiny of credits on the part of bankers and other business men are imperative.

FUTURE OF CANADA BRIGHT WITH PROMISE

By D. C. Macarow
General Manager, Merchants Bank of Canada

He would be a pessimist, indeed, who regarded the future of Canada as otherwise than bright beyond that of almost any other country. In saying this, however, I am not unmindful of the fact that a high degree of co-operative effort will be called for if solid and enduring results are to be gained in the fullest measure. We are confronted with many and perplexing problems in the solution of which, let us hope, broad-minded counsels will avail against narrow sectionalism. The character and spirit of the Canadian people may, I believe, be depended upon with confidence in this connection.

The natural resources of the country are well-night limitless, requiring only population and capital to develop them. A rich reward awaits energy and enterprise. The country affords every enticement for American industries to establish branch plants here with all promise of satisfactory results along permanent lines.

Our rich, extensive and still low-priced farm lands in the West afford at once the opportunity and inducement for American farmers to settle upon Canada's fertile prairies. It is noted already that the tide of immigration thence, interrupted by the war, has again been resumed in large volume.

Sufficient wheat can be raised in Canada's golden West to feed not only ourselves and Great Britain, but to supply, later on, the additional quantity that the United States may, it is within the range of probability, require to import.

The banks of Canada will be found ready at every stage of the country's progress to extend the utmost support and assistance towards the fostering and development of all legitimate undertakings, whether of the forest, the field or the factory.

TOO MUCH TALK AND TOO LITTLE ACTION

By George Wilson
Assistant General Manager, Union Bank of Canada

Our two billion dollars national debt and its attendant burdens, our two hundred million dollars annual obligation for interest upon our securities and investments held abroad, our gradually waning exports, our depreciated exchange, our inflated currency and our profligate expenditures at home have been continuously dinned into our ears to the accompaniment of frenzied exhortations to produce more and consume less, to save more and to spend less, and to export more and to import less, but it cannot be gainsaid that there is not one man in a hundred who gives the slightest heed to these admonitions or warnings. What does the average wage-earner care about the H. C. L. as long as he gets 365 days' pay for 165 days' work? What concern has he in the inflation of

the currency so long as his own pockets are inflated with it? With high wages, abundant money, little unemployment, and prosperity and plenty abounding throughout the land, it is a case of "sufficient unto the day is the evil thereof," and not until the pinch of hard times comes, as it surely will if remedial measures are not soon applied, will the nation at large be brought to a proper sense of its responsibilities. The gist of it all is, that there has been too much talk and too little action, and it is really up to the captains of industry, the leaders of finance and economic experts to get together and endeavor to put into practice some of the theories they preach so eloquently. For instance, why should the splendid work performed abroad by the Trade Commission go by the board?

It has been amply demonstrated that there are markets in all the four quarters of the globe for Canadian products, but, notwithstanding that, it is universally admitted that the development of our export trade is the surest guarantee for relief from our future financial burdens, the present grand opportunity is being allowed to slip from our grasp. What was the $70,000,000 spent on our 60 ships of the Canadian mercantile marine for? Surely there must be some relation between this appropriation and our export trade!

Foreign trade credits of $100,000,000 were established by the Government for 1919 in favor of France, Belgium, Greece and Roumania, of which it is announced only $40,000,000 was availed of, not because those countries refused or did not require our goods, but, presumably, because we were too busy at home to supply them. It is true that there are divergent opinions respecting the desirability of granting foreign long-term credits, but if Canada waits until the universal shortage of essential commodities is overtaken by increased production before she reaches out for foreign markets, she will probably find that other nations have forestalled her and that the opportunity has been lost.

The present is the time to establish our goods in foreign markets, and, once established there, a permanent outlet for our surplus products is assured. A nation which shouldered the colossal financial burdens of the war should surely not be daunted by the establishment of one or two hundred million dollars of foreign credits, and securities issued against such credits with the underlying guarantees of the Dominion and foreign governments could probably be partially or wholly disposed of in the United States, where our credit stands highest of any of the foreign nations, but even if not marketable there, they could undoubtedly be absorbed at home.

If the manufacturers of Canada would emulate the example of their contemporaries in Great Britain and bring their scattered groups of industries under a co-ordinated working organization for the promotion of foreign trade, production far in excess of domestic needs would result. Under such conditions, with foreign markets waiting, the necessary financial machinery would undoubtedly soon be set in motion.

WOULD STRONGLY ADVISE CAUTION

By J. P. Bell
General Manager, Bank of Hamilton

It is with considerable hesitation that I express any opinion on the outlook in the industrial field, as there are so many abnormal factors in existence.

However, I am convinced that it is a time for caution. For several years the failures throughout Canada have been much below normal. This means that the rising prices and great demand for goods have made it possible for many who are incompetent and lacking in sufficient capital to remain in business. The time is rapidly approaching when it will require great skill in managing business to avoid heavy losses. It is a time to think twice before building extensions to plant, and enlarging facilities to take care of the more or less artificial demand.

Reports that reach us from authorities on the other side of the water show that Great Britain is settling down to her normal activities, and will soon be again sending her goods all over the world; and with the European countries like Belgium getting back into production, great changes must be expected in the business outlook; and without being unduly pessimistic, I would strongly advise caution.

THE FINANCIAL OUTLOOK AND CANADIAN INDUSTRIES

By L. D. Wilgress
Supt., Foreign Trade Department, Royal Bank of Canada

The commencement of the New Year is an opportune time to review the financial position of the country and the future outlook as related principally to the manufacturing industry.

Canadian industrial firms can assist the readjustment of the country's finances by increasing the production of articles hitherto imported from abroad and by enlarging the export trade in Canadian products. Both of these are necessary if the decrease of imports and increases of exports are to be attained, which are required to maintain a favorable balance of trade, proportionate to the annual payment of interest on the public debt and other charges which we must henceforth be prepared to meet.

The national debt of Canada has increased ever six-fold since the outbreak of the war and now exceeds $2,000,000,000. During the current year the annual interest payment on this debt will be not less than $115,000,000. In addition there are interest and deficit charges for railways taken over by the Government and increased expenses of governing, so that the total expenditure incurred during the fiscal year ending March, 1920, will probably approximate $669,000,000.

Having these circumstances in view, it is imperative that we should buy as little as possible from foreign countries of the articles which we can get along without or which can be produced in Canada. The existing premium on American funds acts as so much protection to the Canadian manufacturer and should warrant the home production in larger quantities of lines hitherto chiefly imported from the United States. Export trade should also receive careful study and energetic efforts should be put forth by Canadian manufacturers to increase the sale of our goods in the principal export markets.

Our manufacturers are at present enjoying a period of after-war prosperity. It is important that the underlying causes of this prosperity should be properly understood and that the future be gauged correctly. Otherwise the evil effects of any falling off in the home demand will be much more far-reaching.

The backbone of the country's economic fabric is agriculture, or the production of foodstuffs. The reduction of supplies from Russia and other European countries has resulted in Canadian producers of foodstuffs receiving high prices for their products. This is reflected in increased buying power and a great demand for manufactured goods. This demand is augmented by the reconstruction needs of countries more directly affected by the war and the disorganization of industry of the leading manufacturing nations of Europe. Moreover, there is a scarcity of raw mterials throughout the world. The result is that in nearly all lines of industrial products the demand greatly exceeds the available supply.

On the other hand Canadian manufacturers should anticipate a gradual recovery from the varying degrees of economic stagnation now prevailing throughout Europe. The revival of agriculture and of manufacturing industries in these countries will bring about a readjustment and a levelling of prices for which our manufacturers should be prepared.

Canada's Merchant Marine and Its Services

One of the Most Important Developments of the Past Year, the Inauguration of Ocean Services by the Government's New Merchant Marine—Reasons Why These Services Should Receive the Loyal Support of Canadian Shippers

By W. A. C.

OF prime importance among the developments of 1919 from the standpoint of the Canadian manufacturer has been the inauguration of ocean freight services by the new Canadian Government Merchant Marine. With the commissioning of the first of the vessels built for the purpose—an event which took place last May—a new era dawned for Canadian commerce. Hitherto, with but limited exceptions, the overseas trade of Canada was carried in bottoms of British or foreign register, and the growth of business was circumscribed by the obstacles imposed by such conditions. To-day the country has its own ships, manned as far as possible by Canadians, outfitted in Canadian ports and operated with the single object of developing direct trade connection between Canada and the markets of the world. In a word, the instrument is being provided by means of which Canadian manufacturers can ship their products to export markets by the most direct routes and under the most favorable conditions and, if they are to profit by the opportunity, it simply devolves upon them to take action.



In the Cuban Service

The "Canadian Trader", 3,400 tons, sailing from Halifax to Havana, Cuba

Between May and the end of the year about twenty-two of the sixty vessels ordered by the Government were handed over by the builders to the Merchant Marine, and during this year the balance will be completed. As rapidly as they are commissioned these boats are put into service on routes which have been selected as offering the best opportunities. Up to December 9th forty-six voyages were made—ten to the West Indies and Cuba; eleven to Barbadoes, Trinidad and Demerara; three to Buenos Aires; four to London; eight to Liverpool; two to other British ports; one to Bordeaux; one to Havre, and six to St. John's Nfld.

Other services have been decided upon and still others are the subject of investigation. Among the former is the service to Australia and New Zealand from Vancouver and Victoria, which was inaugurated on January 15th with the sailing of *The Canadian Importer*, a fine vessel of 8,100 tons, launched at Vancouver in December. This antipodean service will be maintained on a monthly basis, the vessels to be used on the run being the *Canadian Importer*, *Canadian Exporter*, *Canadian Inventor* and *Canadian Prospector*, all products of the Coughlan Shipyards at Vancouver. With the exception of the *Importer*, all of the vessels operating in the Australian service will be equipped with refrigerator space of 50 tons capacity, which will enable British Columbia exporters to ship fruit and fish. Those in charge of the operations of the Canadian Government Merchant Marine express themselves as being very well pleased with results to date and hopeful of the complete success of the Government's venture into the building and operating of a fleet of public-owned merchant ships. The South American service is developing nicely. At present there is a monthly service in effect between Canadian Atlantic ports and the ports of Brazil and the Argentine, the ships in commission being of 8,300 tons. As yet it has been found impossible to get full return cargoes for the Canadian market so that the ships have had to fill up goods for American ports and stop at these ports on the way north. However, in time enough business should materialize to obviate this procedure.

Ten boats are performing the West Indian service, and for the past two months no difficulty has been met with in getting full cargoes both ways. Here again there are undoubtedly excellent opportunities for an interchange of goods. So far sugar has been an important freight, something like 36,000 tons of raw sugar having been brought from Cuba to Montreal during the past season. Among other raw products being brought north for Canadian manufacturers are hemp and logwood, while manufactured goods in considerable variety are moving south. From British Columbia, four cargoes of lumber have been shipped, three to Great Britain and one to Australia. The possibilities of business through Canada's Pacific Coast ports are great and it will be the aim of the Merchant Marine to develop trade as extensively as possible, not only to render the ocean service profitable, but to provide needed traffic for the Canadian National Railways. In addition to Australian service already mentioned, a service from British Columbia ports to the west coast of South America is contemplated, and this will be inaugurated as soon as boats are available. It is also likely that a service to Japan and China will be undertaken, as trade between these countries and Canada is reaching large proportions.

There are various aspects of the shipping situation which should not be overlooked by Canadian manufacturers. As

regards the Canadian Government Merchant Marine in particular, it should be emphasized that the entire outfitting of these vessels is done in Canadian ports and with Canadian goods. In other words, these Government-owned ships are being administered to the advantage of home production. In return it is suggested that manufacturers ought to give the preference in shipping to merchant marine service thereby assisting in strengthening what should be a source of revenue to the country.

Again, it has become the custom to book business through United States houses to a great extent and agents of the Merchant Marine are constantly being referred to shipping companies in New York and elsewhere. This arrangement was all right enough when perhaps it was impossible to get adequate service otherwise, but it is now suggested that, when Canada's own vessels are operating on all the more important trade routes, it would be desirable to do business direct.

Ships on Regular Schedule

The Merchant Marine has another claim on the loyal support of Canadian exporters and importers by reason of the fact that it is aiming to perform a direct service. Its ships are running as far as possible on a regular schedule between Canada and other countries, when they might very profitably be diverted here and there wherever cargoes are offering. This adherence to fixed routes may mean loss of earnings, but it promises better service and accordingly merits the support of shippers.

Another obstacle which must be overcome is the circumstance that the fleet of ships, as compared with other fleets, has cost a lot of money, and fixed charges are high. The Canadian-built ships have cost $215 a ton. The ships of other fleets, while some may have cost as much to build, would average lower because there would be included a number of vessels built in days when costs were lower. Here again is reason for throwing all the support possible to the Canadian fleet so that the value of the ships may be written down to a level where costs will not prove so excessive.

Finally it must not be overlooked that Canada's little fleet of merchantmen is up against the formidable competition of the large fleet of the United States Shipping Board, which is aiming to do for the United States just what the Canadian Government Merchant Marine is trying to do for Canada. As against a modest 320,000 tons for Canada, the United States Shipping Board will soon be operating 12,000,000 tons. Its ships will herd on all the trade routes and, unless Canadian ships get good support, they may lose out to their more powerful competitor.

Canada has built its ocean fleet in order to ensure an outlet for its products and to obviate dependence on the shipping of other countries. It behooves both exporters and importers to make the best possible use of the means now placed in their hands for extending the trade of the country. It is a service that is needed, and now that it is provided it should receive every encouragement.

Royal Bank Enjoys Growth

Bank Celebrates Golden Jubilee by Carrying Assets Over the $500,000,000 Mark

A gain of over $100,000,000 in assets and earnings in excess of any previous year is reported by the Royal Bank of Canada for the twelve months ended November 30. The great strides made by this institution will attract all the more attention, because in some quarters it was thought that the leading banks of the country would experience some difficulty in keeping up the very high totals reached during the war period, when some very large undertakings were being carried out for the different Governments. This period of readjustment, however, does not seem to have had the slightest effect on the progress of the Royal Bank.

Of equal interest perhaps has been the manner in which the bank has been able to help the country in the expansion of its foreign trade, as it enjoyed perhaps the greatest experience of any banking institution in Canada in this particular kind of business, and on this account was able to lend the fullest assistance in the export business of the country, during the period when this has been of paramount importance.

From the public standpoint, of particular interest will be the gain in total deposits of over $80,000,000, notwithstanding the large withdrawals that must have taken place in connection with the recent Victory Loan. With the increase that has occurred during the year savings deposits of the Bank now stand at $259,465,169, as compared with $197,348,439, while deposits not bearing interest gained to $159,656,229, up from $135,243,278 a year ago.

The general statement of assets and liabilities shows that the Bank has crossed another important milestone by placing its assets across the half-billion mark, these now standing at $533,647,084, as compared with $427,512,982 in the previous year. Of this amount liquid assets are represented by $273,908,862, as against $224,982,088, while cash on hand, as represented by current coin and Dominion Notes, has gained to $55,681,547, up from $42,124,658 a year ago. The last twelve months have been noted for their business activity in all parts of the country, with the result that the total current loans of the Bank now stand at $233,834,879, as compared with $183,748,392 at the end of the previous year.

With the larger business that has been handled, the profits for the year have also shown a healthy gain and



In the South American Service

This is the "Canadian Pioneer," a ship of 8,100 tons burden, sailing from Atlantic ports to South America. This vessel is of the type of the "Raider" and "Importer," which will be inaugurating Canadian Government Merchant Marine Service to Australasia

amounted to $3,423,264, after the usual deductions and provisions, including bad debts. This was at the rate of 20.14 per cent. on the $17,000,000 of capital and was an increase of $613,418, as compared with the profits of the previous year, when the ratio was 18.7 per cent.

After deducting $2,862,602 for dividends and other appropriations, the Bank was able to add $561,057 to its Profit and Loss Account, bringing that item to $1,096,418, thus more than doubling the amount carried forward at the beginning of the year.

Assets Nearly $175,000,000

Fifty-fifth Annual Statement Reveals Significant Progress Made During Past Year

With total assets of $175,000,000, the fifty-fifth report of the Union Bank of Canada is the most notable in the history of the institution. Compared with $153,000,000 last year the Bank has added to its assets $22,000,000 which represents a gain of 14.23 per cent. within the twelve month period, a striking achievement having due regard for the vicissitudes of the reconstruction era.

Notable among the year's developments was the addition of $2,000,000 to the Reserve Fund, thus bringing the total to $5,600,000. This was made possible by the application of $1,781,170 premium from the $3,000,000 new capital stock issue and $218,830 transferred from current profits. The addition to this account brings the total reserve up to 70.28 per cent. of capital.

The Bank's liquid or quickly convertible assets are in excess of $76,000,000 compared with $72,000,000 last year and bear a percentage of 47.23 per cent. to public liabilities.

A gratifying feature of the Bank's return is the increase shown in public savings, notwithstanding heavy withdrawals for Victory Loan subscriptions. Deposits show a grand total of $135,496,514 compared with $127,242,698 a year ago. Non-interest bearing deposits actually declined from $58,805,207 a year ago to $51,119,804, but interest bearing deposits which are essentially the savings of the nation, increased by $15,939,219, or 23.29 per cent. to a total of $84,376,709. But for the wide participation in the Government loan unquestionably even larger figures would have been shown, which is direct evidence that the banking campaign based upon the national need for further thrift and economy is accomplishing much of its purpose.

Nova Scotia to Hold an International Exposition

By H. R. THOMPSON
Secretary, Maritime Division, C.M.A.

ON December 3 and 4, a Provincial Conference was held in Halifax to consider a proposal for an Old Home Summer and International Exposition for Nova Scotia. The idea originated with Horatio C. Crowell, a returned soldier who, when overseas, was impressed with the fact that Nova Scotia has not been given due publicity. Mr. Crowell placed his views before the Halifax Board of Trade, and his proposal was endorsed to such an extent that funds were furnished to make it possible for him to visit all sections of the province in an endeavor to have the scheme thoroughly discussed, and if possible, endorsed by many commercial organizations before a general conference was called to consider the proposals in deail and definitely draft the plans for carrying them out.

Early in the Conference a unanimous resolution was adopted endorsing the proposal for the "Old Home Summer and International Exposition" and a provisional committee on "Ways and Means" was appointed to draft definite recommendations for carrying out the proposals as outlined. At the last session the recommendations of this committee were submitted and adopted. In short, they were as follows:

1. That the celebration of the "Old Home Summer and International Exposition" be held in the year 1924.

2. That this Conference appoint an Executive Committee of nine members, this Committee to be trustees of any funds raised for the preliminary work of organization and to be empowered to proceed with the permanent organization of the Old Home Summer Association and International Exposition. The said Executive shall be empowered to employ secretaries and such organizers as may be deemed necessary. They are to carry out the following programme: Draw up letters of incorporation. Prepare necessary legislation propaganda and organization of financial campaign, co-operation with schools and civic bodies for arbor month, May, 1920, and such other matters as may be necessary to carry on the objects of the Association.

3. That the Executive Committee shall be composed of certain gentlemen which were named.

4. That certain gentlemen be appointed to act as conveners of county meetings for the purpose of organization, and that J. F. Masters and R. E. Johnson act as conveners for the New England States and that Miss C. Carmichael, Provincial President for National Council of Women, be Convener for Women's Organizations.

5. That the Executive Committee, together with representatives from the Provincial Exhibition Commission, shall be instructed by this Conference to enquire into all matters relating to International Fairs, devise ways and means for financing the project, confer with the Provincial Exhibition Commission, and report back to the Conference at a date to be determined by the Executive.

6. That the sum of $25,000 be raised by popular subscription for preliminary organization expenses and that the Victory Loan and other organizations be employed for the purpose of collecting the same.

The "Old Home Summer" feature is intended to stem the tide of immigration and to call back on a visit at least some of the former residents of the Province in an endeavor to re-interest them in the land of their birth.

The "International Exposition" will be held at Halifax and is intended as a means towards world-wide publicity and of attracting the attention of commercial interests which have not had a suitable opportunity for studying the possibilities for the favorable investment of capital in the development of the resources of Nova Scotia.

An effort is being made to extend the "Old Home Summer" feature to include New Brunswick and Prince Edward Island, and it has also been suggested that an exhaustive survey be made of the resources of the Maritimes and that an industrial tour be organized to give the visitors an opportunity to study the conditions at first hand.

Among the speakers at the Conference were the Lieutenant-Governor of Nova Scotia; Hon. G. H. Murray, Premier of Nova Scotia; Mayor Simpson, of Dartmouth; Horatio C. Crowell; F. G. J. Comeau; John F. Masters, Vice-president American-British Federation, Boston; R. E. Johnson, ex-President Intercolonial Club, Boston; H. R. Thompson, Secretary Maritime Division, C.M.A.; R. U. Parker, G.P.A., Dominion Atlantic Railway; D. W. Johnson, Director of Publicity, Ottawa, and K. H. Smith, Chief Engineer N.S. and N.B. Water Power Commission.

A Review of Industrial Conditions in Canada

The views of a large number of leading Canadian manufacturers on the state of Industry in 1919 and the Outlook for 1920.

IN the following pages there appear, grouped as systematically as possible according to the different lines of industry, the comments of upwards of two hundred Canadian manufacturers on conditions which have prevailed in the field of industry during the year just closed, together with a forecast of what the present year has in store. These views have been received in response to a request sent out by INDUSTRIAL CANADA in December and are representative of all the principal manufacturing industries of the Dominion. In some few cases the writers have requested that their names be withheld, but the large majority of the contributions to the symposium appear under the names of the manufacturers who have prepared them.

It will be found, in reading through the various reviews, that there is a good deal of unanimity of opinion among manufacturers on certain basic conditions. Thus on the question of labor, it is generally reported that skilled labor has been very scarce and even unskilled labor in short supply. Average efficiency apparently has declined and output has not been maintained on a proportionate scale to the pre-war period. At the same time some improvement over 1918 was noted in various quarters in the matter of labor supply, with better conditions as affecting the relations between employer and employee. The raw material situation has also been a serious factor and at the end of the year was quite as bad as ever. It is at once the cause and the outcome of the high prices which have characterized business during 1919.

Market conditions have been wonderfully strong, with a persistent demand, particularly during the latter half of the year, for practically all the products of industry. This has made selling easy, while the shortage of goods has put obstacles in the way of ready buying. The call has been for quality goods, a feature which is commented upon by many manufacturers and given as one reason for the present high cost of living. The strength of the home market has been detrimental to the promotion of export trade, which has also been handicapped by the unfavorable state of international exchange.

On the outlook, there is unanimity of belief in a continuance of strong and active markets for some time to come. Commentators, however, are averse to prophesying very far in advance and content themselves with expressing confidence in the state of business for 1920. Beyond that there is uncertainty and a note of caution is sounded as to the desirability of not extending manufacturing capacity too far under the stimulus of present abnormal conditions.

The Outlook for Canada's Steel Industry

CANADA'S steel industry has weathered the difficulties of the transition period remarkably well. The outlook at the end of the war was none too hopeful, with munition business at an end and no pronounced rush for construction materials. However, as the year advanced, business began to develop on substantial lines and the strike in the United States, throwing orders to Canadian mills, had a very stimulating effect on the industry. The outlook is hopeful, and the steel men who contribute to the following symposium are all optimistic as to the future. New lines are being undertaken and the industry as a whole is being developed along broad lines.



Immense Coke Ovens of the Dominion Iron and Steel Co., at Sydney, N.S.

DEMAND FOR STEEL GROWS GRADUALLY

By Mark Workman

President, Dominion Steel Corporation, Limited, Montreal

Production conditions have been affected very slightly in the steel industry by shortage of labor. There has on occasion arisen a shortage of common labor, but the effect has not been material. The supplies of raw materials used by our company, that is, coal, iron ore and limestone, are owned and controlled by ourselves. We are, herefore, at all times in an excellent position as regards basic supplies. Operating conditions have on the whole been normal, and no unusual conditions have arisen.

The demand for steel during the past year has grown gradually. Had it not been for the industrial unrest in the United States culminating in many strikes, I think it would be fair to assume that the volume of business for 1919 would have been rather more than the last normal pre-war year.

The effect of the situation in the States has been to create a serious shortage of steel in that country. This shortage has been estimated at between three to four million tons. My best information is that the leading interest has experienced a shortage of about two million tons by reason of strikes.

The effect on the Canadian steel market has been felt in many lines, such as Canada has been in a position to produce or on which they had a stock available for immediate shipment. These stocks were picked up very quickly by American buyers, who have been in Canada for the past month.

It is recognized, of course, that this is merely passing business. It cannot be regarded as permanent, and we have not found any great desire on the part of American purchasers to buy for more than about one month ahead. As I have already stated, however, they have cleaned up a great many stocks of the Canadian mills. With regard to new lines, I might say that our company has entered into the manufacture of small rails, that is to say, rails of weights under 60 pounds per yard. You will understand, of course, that we have been operating a mill for several years for the production of rails 60 pounds per yard and heavier. Our company has been exporting various products practically since its inception. We are particularly well situated for export trade, but we do not know that any important development is to be expected in the export market. We have, of course, every expectation that the business will continue.

There is no doubt that the elimination of Germany and Belgium, perhaps only temporarily as competitors, may make a greater demand for steel for export now than there will be when these countries and France as well are producing steel more nearly comparative with their pre-war tonnage. But when conditions were normal we were exporting steel, and we cannot see any reason why it should not continue. Then again it may be that these countries coming back into their own, as it were, will make the competition even harder than it was before.

We believe we will be able to export steel at all times from Sydney by reason of our favorable location on the Atlantic seaboard, and by using our own vessels, which enable us to ship directly from our own works, eliminating freight hauls to the seaboard which are necessary in the case of most of our competitors.

So much has been written on the outlook for the steel industry in Canada, that I am somewhat reluctant to say more than that I believe that the steel industry in Canada is still in its infancy. I feel that all that is necessary for a large development of the manufacture of steel in this country is confidence, fresh vision that we may build up for the future and amicable relations between employer and employee.

GOOD DEMAND FOR ALL LINES OF STEEL

By Robert Hobson

President, Steel Co. of Canada, Limited, Hamilton

The supply of labor during the past year has been very satisfactory. We have had no difficulty in getting our regular supply of raw materials until the coal strike started

on the 1st November. Operating conditions in general, considering the disorganization which took place during the years of the war, have been fairly satisfactory. At our Swansea Works, Toronto, our men were out in sympathy with the Metal Trades strike.

During the first months of the year, trade fell off with us somewhat, but has been picking up well during the later months of the year. It is quite as good now as it was during the last period of the war. I refer now to steel for ordinary commercial purposes. We have a very good demand for practically all the lines of goods that we manufacture. The effect of the United States steel strike was to cause some concerns who largely purchase in the United States, to come to us for assistance.

We have made no new developments to speak of during the year at our plants beyond replacing some older types of machines by new ones of up-to-date design.

We have done a fair amount of export business during the year, but we have been handicapped considerably by the high rates of water freights and to the rates of exchange. During the last few months it has kept us fairly busy looking after our domestic trade.

I am decidedly optimistic as to the future of the Canadian steel industry, both for the immediate future and for the next two or three years.

ALGOMA STEEL PLANT BRANCHING OUT

By W. C. Franz

President, Algoma Steel Corporation, Limited

We have had no difficulties as to production being affected by labor supply or supply of raw materials, and our operating conditions have been favorable; the only reason for curtailed production in the past twelve months has been lack of orders.

There was not much demand for steel this year up to sixty days ago, but at the present time the demand compares favorobly with that of the last period of the war. All lines both iron and steel, are in request. The U.S. steel companies supplied quite a large tonnage, both iron and steel, in Canada, and the effect of the strike has, of course, increased the Canadian demand upon our products. Further, we have sold some of our products in the States, principally due to the U.S. steel strike.

We have branched out in our production, the most important of which is the manufacture of structural steel shapes up to 15-inch beams and channels. We are also producing an alloy steel of different kinds, and find quite a demand for this product.

On account of our location, we do not contemplate being much interested in export business. During the past year we sold some steel rails to Belgium, which were shipped by way of Montreal. We do not expect to develop any large export trade.

In my opinion, the future of the Canadian steel industry is looking better to-day than at any time in the past, and with the natural growth of the country there is a great opportunity for enlargement of all steel plants, and an increase in production. This, I think, applies to the immediate future and the more remote future.

OPERATING MILLS TO FULL CAPACITY

By Arch. McColl

Secretary, N. S. Steel & Coal Co., Limited, New Glasgow

Demand for steel fell off materially after the war. In the last period of the war, and in fact for the greater part of the war period, we were very busily engaged in the manufacture of steel for munition purposes. This demand, of course, was cut off completely, and while we were comparatively busy during the first quarter of 1919, the second quarter saw a large falling off in orders; and the third quarter was practically stagnant, and our blast furnaces and open hearth plant were shut down for relining and repairs. In the fourth quarter the demand for steel products has improved and we are now operating our mills at New Glasgow to their full capacity; a large part of our plant, however, being adapted principally to the manufacture of material for car-building, has, owing to the scarcity of business, been closed down for the past six months, and so far no demand for cars is yet in sight. The effect of the

(*Continued on page* 244.)

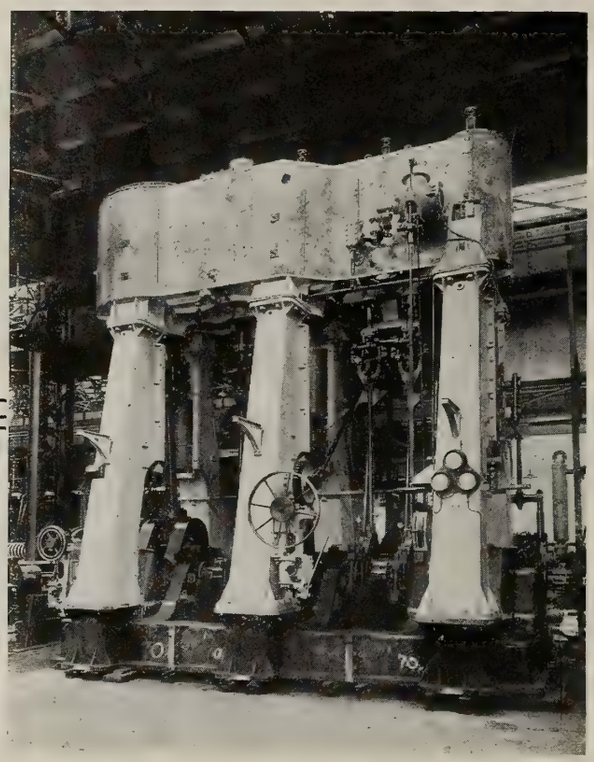


Another View of the Dominion Iron and Steel Co.'s Coke Ovens, showing Pusher and Pusher Track.

This photo and the One on the previous page by courtesy of Iron and Steel of Canada.

The Machinery and Metal Industries

IN the wide field of industrial activity represented by the above heading, there has necessarily been a considerable variety of experience during the past year. Common enough to all industries has been the shortage of skilled help and the difficulties and delays incident to the securing of raw materials. These conditions have, of course, been more serious in those special industries which have been experiencing an increased demand for their product. Other industries report a falling-off in demand, since the end of the war and in consequence they have not felt the labor and material shortage to such an extent. On the whole, however, business has been satisfactory and the outlook is regarded as favorable. With building being gradually resumed on a more extensive scale and with enlargement of industrial capacity on all hands, there will be better opportunities for the sale of machinery and equipment and a larger consumption of those metal products which form the raw material of so many industrial processes.



Triple Expansion Marine Engine, Built in a Canadian Engine Works

Photo by courtesy Canadian Vickers, Limited

PRODUCTION GETTING BACK TO NORMAL

By H. J. Waddie
President and Manager, Canadian Drawn Steel Co., Ltd., Hamilton

Our experience during the past year or more has been rather trying owing to the following conditions: First, the difficulty of securing adequate labor, and steady labor; Second, the great shortage in raw materials; Third, the shortage of transportation facilities. These three conditions have considerably reduced our output, but we are now getting back to normal. The demand for our products has been very great and we have been quite unable to cope with it. Even with additional labor, the shortage of raw material would interfere with any material increase. Values have an upward trend at present, and must continue as long as wages, freight rates, rates of exchange, etc., continue to advance.

INTRODUCING NEW LINES

By D. W. Robb
Vice-President, Robb Engineering Works, Limited, Amherst, N.S.

Labor has advanced in all lines of our work, namely, machinists, foundrymen, boilermakers, patternmakers, etc., about 20 per cent. during the past year, and fully a third since 1915. We are now working eight hours per day, forty-eight hour week, so that our overtime costs more and, while we have not had any serious labor troubles or disputes, we find there has been considerable disturbance and a tendency to do less work per hour than there was previously.

In our raw materials, consisting of pig iron, boiler plates and other materials of that class, we have had and are having considerable difficulty in getting a sufficient supply, and the prices are very much higher than they were and there does not seem to be any tendency to come down.

Our output increased during the war, due to the manufacture of shells and other war materials, but now that we are getting back to the original lines of work, we find some difficulty in securing sufficient orders to keep us busy, and our output is considerably reduced. We are endeavoring to introduce some new lines of manufacture, including the production of a farm tractor for kerosene burning, and we hope by degrees to bring up output to normal output or increase it, and eventually to get into the export trade in some of the lines.

The hopeful signs in regard to the future, are: That there is a great deal more money in circulation and capital available, both for old and new industries in Canada, than there was before the war, and there is a shortage of a great many commodities, especially food stuffs, all over the world, which is bound to keep up production and increase it for some time to come.

The unfavorable signs are the disturbing conditions of labor and the uncertainty as to the outcome of new investments. We hope, however, that by degrees these difficulties may be overcome, before there is any serious re-action.

HOISTING AND MATERIAL-HANDLING EQUIPMENT

By Geo. Day
M. Beatty & Sons, Limited, Welland

In common with everyone else, we had difficulty in keeping our men satisfied during the war, and immediately after, but by paying them top wages and a bonus, where the nature of the work permitted it, and by taking them into our counsel to some extent, we got along without any difficulty.

Raw materials were difficult to get, but did show a tendency to become easier, until lately. At the moment it is not any too easy to get delivery of necessary raw materials.

General operating conditions to-day are better in some ways than they were, that is labor is a little more tractable, but materials are not quite so easy to get. We did increase our output during the calendar year of 1918 and the first

half of 1919, due to our having long-time contracts for ship winches for the United States Government and French ships, but our production is down again now, due to the fact that no public works of any moment, outside of the Hydro power development at Chippawa, are being pushed.

The demand for hoisting and material-handling equipment, which is the class of machinery we build, is quite poor, due to the reason before mentioned, i.e., that not enough harbor work, canal work, etc., is being done to keep us busy. Values, we feel, are not going to decline; we tried our best to make a reduction in the selling price of our product, but we soon found that it could not be done without loss. Materials seem to be on the upward trend, and it is not likely that labor will be satisfied with less than they are receiving now. We have done nothing whatever in the export field proper.

So far as we are concerned we think the next three or four months at least are going to be slow. The winter time with us is generally a busy one, as usually we have contracts in hand for a dredge or some other big installation which occupies us fully. Just at the moment though, there is nothing of this sort in hand, and unless the Government decides to go on with the Welland Canal, and some other projects, it looks as though that phase of our business would be slack for some time hence.

What we would like to see is a decision to go on with these waterways, both the Welland and the St. Lawrence, and so afford work to a great number of men, and also make provision against recurrence of the trouole we are now experiencing. Money spent in utilizing the power now going to waste on the St. Lawrence, looks to us to be so obvious a thing to do that there should be no discussion about it.

CONDITIONS IN BRITISH COLUMBIA

By J. R. Duncan

Vulcan Iron Works, Limited, Vancouver, B.C.

Conditions on the Coast, from a labor standpoint, have considerably improved. The sympathetic strike which took place in Vancouver in June, seemed to clear the air, but our best advice is that whilst there is no apparent discontent on the surface there is an insidious propaganda being carried on.

Raw materials have been hard to get, and the lack of water transportation from the eastern sea-board has made us dependent entirely on the railroads. We have increased our output considerably during the year, and, as above indicated, our general operating conditions at the present time are fairly equable. We have still a good demand for our lines, and the outlook for the coming year is satisfactory. We find a tendency to accept steel commodities on the present market basis, the consumer evidently having made up his mind that the possibility of cheap steel is not obvious in the near future.

The Dominion and Provincial Governments both have committed themselves to spend large sums of money on necessary development work. Our business is expanding, and, whilst not enlarging our plant, we lose no opportunity to discard old machinery and replace same with the most effective for our class of work. We have introduced the manufacture of pulp mill machinery, such as digesters, evaporators, rotaries, etc., and lines which were heretorore imported from the United States we are making in Vancouver on a strictly competitive basis.

I have just given you these random thoughts, and if you purpose making use of them, you can co-ordinate same to suit yourselves.

BIG DEMAND FOR HEATING APPARATUS

By A. S. Capwell

Canadian Blower & Forge Co., Limited, Kitchener

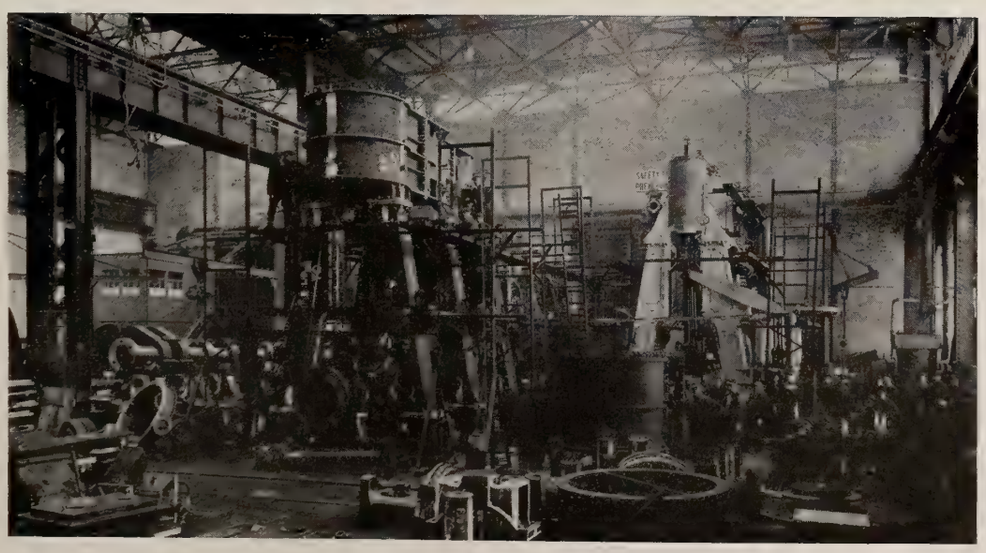
We find a scarcity of skilled labor for general machine work, and are obliged to depend on inexperienced labor to a large extent.

In our process of manufacture, we use a great deal of sheet steel, and small structural shapes, all of which we have to bring from the U.S.; consequently we have had material on order for a number of months on which we have been unable to secure delivery.

We were engaged in the manufacture of munitions, and increased the capacity of our plant for this work, so that we have been adding to our line in order to provide additional output to take care of the increased manufacturing facilities. This has meant the addition of new machines, and a general increase all along the line.

We have endeavored to keep our prices on the same level as they have been for the past year, but have been obliged to increase in some lines, owing to increased labor and manufacturing cost. As to demand, we are extremely busy and have more orders on our books than at any time for

(*Continued on page* 294.)



Scene in a Canadian Machinery Manufacturing Plant, Showing Marine Engines Being Assembled.

Photo by courtesy Canadian Vickers, Limited, Montreal

Agricultural Implements and Tractors

SHORTAGE of materials and high wages are tending to restrict output and keep up cost of production in the agricultural implement manufacturing industry. These are two factors which are being stressed at present by manufacturers. The lack of materials was becoming a serious matter towards the year-end, aggravated as it was by strikes in the steel and coal industries of the United States. That the situation might become even worse was the opinion of some. So far as the supply and efficiency of labor is concerned, most reports agree in stating that skilled labor is short, while the average of efficiency is lower. Taking all conditions into account, there is no likelihood of any early decline in the price of the finished product.



Assembling Grain Drill Discs in a Canadian Implement Factory

The domestic market has been fairly active, though several manufacturers point out that the high prices are restricting purchases to cases of absolute necessity, and that a drop in prices would undoubtedly stimulate a big buying movement. In the export field, steady improvement is observable, though the serious condition of exchange in many foreign countries may tend to halt export business.

The tractor industry grows in importance with the increasing use of their source of power on the farm. Several new tractor manufacturing industries have been established, and their report is that the outlook for business is favorable. Tariff uncertainties, however, are hampering production in some cases, particularly where competition with the cheaper type of American tractors is encountered.

The experience and opinions of several Canadian manufacturers follow:

GENERAL REVIEW OF IMPLEMENT INDUSTRY

By Chas. L. Wisner
2nd Vice-President, Massey-Harris Co., Ltd., Toronto

Our experience with regard to the various manufacturing conditions the past season has been that the labor situation remains difficult. There is a distinct shortage of men in certain trades, notably the iron moulding trade. The general expenses of operating a factory have, contrary to our expectations, increased rather than decreased, and the whole situation at present points to a more expensive operating condition for 1920 than for 1919.

Production has not been increased and the present output per man does not compare favorably with similar output in pre-war times. Up to about two years ago our factories worked fifty-nine hours per week. About two years ago we established the Saturday half-holiday to apply the year around, and also reduced our factory working hours to nine hours per day—this made a fifty-hour week. Last summer we put our factories on a forty-eight-hour per week basis. In this readjustment of hours there was also a readjustment of piece-work prices and day rates so as to enable the workmen to have the same earning power as they had over the longer working period per week, and it was our hope that the shorter working hours would inspire the men to a little greater effort and that in some degree they would increase production to in a measure overtake the loss of the extra working hours. Our hopes in this direction have not been realized.

There is no change as regards the kinds and qualities of implements for which we have a demand. Prices are remaining at an uncomfortably high level. We had hoped that production costs would begin to show sign of decrease, but from information which we have at the present time regarding 1919 production costs, it would seem as though 1920 prices will have to go still higher. The marketing conditions, so far as Canadian trade are concerned, have not changed in any degree.

Export business has not ceased to be a factor with us even during the four-year war period. Of course our export trade was much restricted during the war, because of the cutting off of business relations with enemy countries where in pre-war times we had enjoyed a large and profitable trade. There is no immediate prospect of resuming business relaitons with the Central European countries. There is a great demand for our products in the foreign fields and we should look forward to a very satisfactory volume of business in Britain, France, Italy, and the Scandinavian countries were it not for the difficulty that is now cropping up with regard to exchange. We fear that depreciation in the value of foreign currency as compared with the dollar, will have a very serious effect upon our ability to keep up our export business.

In Australia the harvest is an absolute failure. This will mean that largely the stocks which we shipped there for this year's harvest will be carried forward and will result in our having practically nothing to manufacture for that trade for next season.

In the Argentine our information is that for the present the harvest outlook is satisfactory. Should this be the case, a nice clean-up of machinery supplies will doubtless result, and we will hope for substantial estimates from that market for the following season's business. The actual results, however, of the Argentine situation will not be known until the 1st of January.

The outlook, so far as our ability to produce goods is concerned, is satisfactory, providing we had less difficulty in

securing raw materials. Three months' ago we would have expressed the opinion that supplies of steel and other raw materials were going to be easier to secure and that prices were likely to work somewhat lower, but the effect of the steel strike, and later the coal strike, has had a very serious affect on the outlook for the immediate future, and all the indications at the present time point to greater difficulties in securing our raw materials and in a substantially increased cost of both these basic materials and all items of factory expense which enter largely into the cost of our production.

All this is naturally a great disappointment to us as, frankly, the very high cost of agricultural machinery at the present time is an obstacle in the way of doing a satisfactory business, and we have been very anxious to see some signs of reducing operating expenses and production costs so that we could in turn reduce our selling prices, which we know would have the immediate affect of increasing our volume of business, but unfortunately there is nothing in sight at the present to indicate anything but still higher prices for next year.

OUTLOOK FOR DOMESTIC TRADE GOOD

By J. E. Ruby

General Manager, Frost & Wood Co., Ltd., Smith's Falls

In our experience raw materials were more readily obtained, and except in a few of the skilled trades, such as tool makers and moulders, labor was readily obtainable; as a consequence manufacturing operations were carried on with more comfort than during war years.

In Eastern Canada farmers purchased more freely than they did in 1918, when there was a general tendency to defer purchasing in the expectation of a reduction in prices; in Western Canada the light crop had its effect on the sale of harvesting and haying goods in which we are largely interested; our volume of sales throughout Canada showed an increase of 10 to 15 per cent., but our export trade, due to unsettled conditions, following the war, showed quite a marked decrease from the previous season.

Despite increased cost for both raw material and labor, implement manufacturers generally made no advance in prices to consumers during 1919 over the 1918 figures, except an amount sufficient to cover the increased freight rates which were put into effect; there was a marked tendency on the part of consumers to purchase as far as possible labor-saving machines.

Export trade shows little, if any, signs of improvement, nor do we anticipate any change in this respect until conditions become more stabilized throughout Europe, and more particularly until foreign exchange rates are stabilized. The outlook for domestic trade is good for the coming season, but we think present manufacturing facilities are quite adequate to take care of the demand, especially in view of the situation with respect to foreign trade.

OUTLOOK FOR TRACTORS GOOD

By F. R. Bartlett

General Manager, Chase Tractors Corp., Ltd., Toronto

We have just started into the manufacture of agricultural implements during the past year and regret to say that I cannot give you an intelligent answer that would be of any value to the questions asked. However, I will give you what I can. Throughout our various industries we have had no trouble whatsoever regarding labor, material and general operations, with, perhaps, the exception of coal and coke. We expect some difficulty with those above-mentioned two this winter. Those of our industries which we can compare with last year show a marked increase in output compared with a year ago.

Export business has not yet become a factor, but we can say that the development of it looks very promising. Our outlook on the whole situation is very optimistic. We cannot see how the demand can do other than increase for some time to come, and we doubt if the manufacturing facilities will be adequate to keep pace with it. We are enlarging one of our factories in Galt and are contemplating a large addition to our big plant here in Toronto.

OUTLOOK PROMISING FOR NEW YEAR

By Thos. B. Christie

Works Manager, Sawyer-Massey Co., Limited, Hamilton

We find the labor situation in such a condition that it is very difficult to procure skilled mechanics in almost every line of work. There is apparently no scarcity of handy men, and if you have sufficient work of repetition character, it is quite possible to educate these men to do that work. The raw material situation is in a very serious condition, due largely to the steel and coal strike, which has been inter-



Woodworking Department in Imple men Plant, showing the assembling of seeder boxes.

Photo bycourtesy of International Harvester Co. af Canada, Limited.

fering in a general way with all classes of material either directly or indirectly. In as far as our own business is concerned our production has been increased, but not to any appreciable extent during the past year.

We find exceptionally good demand for all of the lines of machinery that we manufacture at the present time, probably due to the fact that nearly all concerns are more or less affected by the labor conditions and therefore are unable to supply the goods, and naturally everybody is making inquiries from every available source of supply.

Our export business has considerably increased during the past year and is developing as rapidly as we can take care of it.

In as far as our own work is concerned, the outlook looks promising for 1920. We believe that we will be able to dispose of all goods that we can manufacture. In fact at the present time, with the programme that we have laid out for 1920, we believe that we have sufficient to take care of us until about the end of August, 1920. We are not anticipating any additions to either plant or equipment at the present time.

OUTPUT SOMEWHAT GREATER LAST YEAR

By Jas. Hamilton

The Peter Hamilton Co., Limited, Peterborough

In connection with a great many other machinery firms in Ontario, we had quite a long strike with our moulders last summer which kept our work back to a great extent. We really did not have any other labor trouble to speak of. Raw materials have come in promptly until this last month or two. Production has been increased to some extent, and our output at the present time is somewhat greater than it was a year ago.

There is no doubt but that the introduction of the tractor will change the types of plows and cultivators used, but we do not think it will affect other implements very much. Taking into consideration the advances which have been made recently in lumber, steel, iron and everything else which goes into the manufacture of implements, we do not consider that any decrease in prices is justified.

The export business has never been much of a factor with us, but we have not as yet reached the same volume in export business that we had previous to the war.

It is pretty hard to size up the outlook just at present. There is no doubt the farmer is looking for lower prices, and with him lower prices mean a radical reduction. It is true, we do not think the average farmer has been buying as many implements the last three or four years as he did previously. so that there should be a real need for them and an increased demand, but whether this will develop this year or not, it is pretty hard to say. We have no doubt that not only ourselves, but other implement firms will be able, with present equipment, to handle the increased demand. We have no present plans for factory enlargement.

FACILITIES BEING TAXED TO LIMIT

By M. Moody & Sons Co.

Our experience in manufacturing in 1919 has been satisfactory to a certain extent, namely, we have had sufficient labor, but we have not been satisfied with delivery of raw material, and in general operations. Our production during the year has not been increased to any extent. There was a greater demand for harvesting machines than seeding machines. This evidently was caused by a very wet fall in 1918 which interfered with ploughing, so that the farmers did not buy a great quantity of seeding machines for spring in 1919.

We have not yet entered the export business, as all our goods are sold in Canada.

The outlook is very good indeed; the demand is likely to keep up and manufacturing facilities are taxed to their utmost. We have last fall enlarged our wood-working department, and in the spring of 1920 we intend enlarging our foundry to almost double its capacity. From what information we can gather the agricultural industry will be very healthy for quite a few years.

DEMAND FOR IMPLEMENTS ON INCREASE

By Arthur W. White

Manager, The George White & Sons Co., Limited, London.

There has been, and still continues to be, considerable industrial unrest. We find very little difficulty, however, with our labor. We find deliveries of raw materials very slow from the U.S. and we have to purchase a large amount of our raw material in the U.S. as it is not made in Canada. Coal and steel strikes have aggravated this situation.

Demand in Canada is increasing. The tendency is to raise prices, but in our opinion it is very wise for all manu-

(*Continued on page* 244.)



View in the Knife and Bar Department of Implement Factory, showing operations on section and ledger plates.

This photograph is also furnished by courtesy of International Harvester Co. of Canada, Limited.

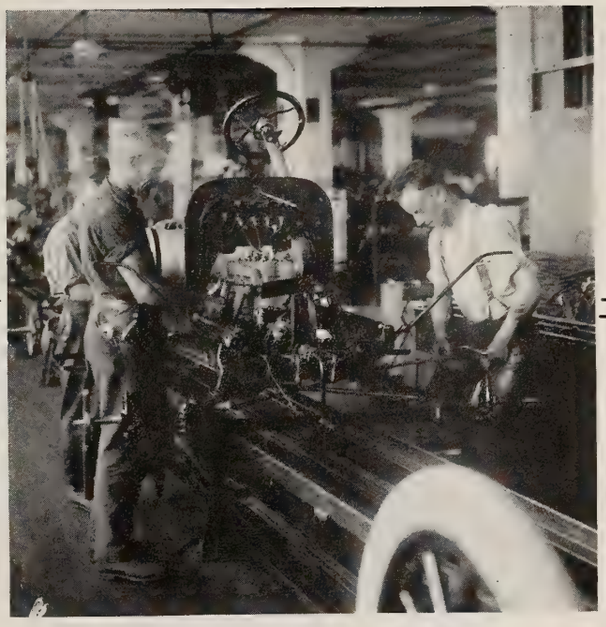
Canada's Automobile Industry Grows

EXPANSION has been the keynote of the automobile manufacturing industry during the past year. Repressed to a certain extent during the war years, the moment that restrictions on production were lifted, plans formulated to increase capacity were at once put into effect and are to-day beginning to bear fruit in greatly enlarged output.

Manufacturing conditions in this particular industry have been somewhat variable. From one quarter comes the report that both the supply of labor and of materials has been satisfactory; from another that labor has been inefficient and supplies difficult to procure. It is probably safe to say that the same difficulties which have beset other lines of industry have been felt by the manufacturers of automobiles. Gratifying indeed is the evidence given that the industry in general is becoming more and more self-contained through the steadily increasing production of Made in Canada parts. The reproach that Canadian plants were largely engaged in the assembly of American made parts is being rapidly removed and more than one company is now practically manufacturing all-Canadian cars.

The market for cars has been extremely active and it is believed that the demand will be strong throughout 1920. The opinion is expressed that, owing to the scarcity of raw materials, it will be impossible for manufacturers to keep up with the demand. Predictions are also made that export trade will become an important factor.

Appended are a number of comments supplied by manufacturers of automobiles and motor trucks:



Assembling a Car in a Canadian Automobile Factory

Photo by courtesy
Ford Motor Co. of Canada, Limited

INCREASE PLANT CAPACITY 100 PER CENT.

By R. S. McLaughlin

President, General Motors of Canada, Limited, Oshawa.

Our experience as regards labor during 1919 is that it has been sufficient and efficient. With the exception of two or three varieties, the supply of raw materials has been quite satisfactory.

With regard to the manufacture of parts, we have developed very decidedly. This year we put up two units of what will eventually be a very large plant in Walkerville, each 600 x 150 ft. The style name of the company is Canadian Products Limited, and is a division of General Motors of Canada. In these plants we are now manufacturing engines and are getting ready just as fast as we can to manufacture axles, transmissions, and other important parts which we have heretofore been importing. Canadian manufacturers of materials necessary to go into engines, axles, and transmissions are co-operating very heartily and satisfactorily. We are very pleased indeed with the progress we have made so far.

Production last year has been increased about 20 per cent., and would have been increased very much more had it not been for the extraordinary and absolutely unfavorable conditions which existed during the early part of the year owing to war conditions previous to Nov. 18th, 1918.

We have experienced a very heavy demand for all varieties of cars of our manufacture, including McLaughlin, Chevrolet, and Oldsmobile. Export business has not been a factor to date, but there is every indication that it will be a very large one in the immediate future. The demand in Canada appears to be unabated. Outside of minor changes and improvements, present types will be continued.

The capacity of our plants here in Oshawa by the first of the year will be increased over last year by at least 100 per cent., as we have put up three very large modern buildings and have added very considerably to the capacity of some of our older plants.

OPERATIONS DELAYED BY LACK OF MATERIAL

By T. A. Russell

President, Willys-Overland, Limited, West Toronto

It is somewhat difficult to answer your questionnaire, owing to the fact that a year ago this country was entirely engaged in manufacturing munitions and was using its whole plant for that work. As a result we have really no data of a comparative nature between the two years. In a general way I might state, however, that our experience of the supply and efficiency of labor is about the same as it was last year, and that was none too satisfactory. The same position applies to the quality and supply of raw material. Supplies are extremely difficult to obtain, and operations are being delayed owing to the inability to secure some essential raw material. We are planning to manufacture the greater part of the cars in Canada, and a very large proportion in our own plant. The market conditions continue good, and as yet in advance of the supply.

AIM TO PRODUCE ENTIRELY CANADIAN CAR

By W. M. Gray

Vice-President, Gray-Dort Motors Limited, Chatham

The labor supply during 1919 has been stringent at times, but, due to our location, we have been successful in combating it. In so far as the efficiency of the labor is concerned, it

has been rather poor, due to the fact that it is almost entirely green help and has had to be trained to our particular purposes.

The quantity of raw materials has been curtailed; shipments have lagged behind and production has been seriously affected on that account. The quality also has been generally lower. The general operation of our plant has been difficult in so far as attempting to maintain our schedule, this being due to the fact that we were trying to increase our production and at the same time recover from war conditions.

We have developed to quite an extent the manufacturing of parts in our own plant, and have put on an exceptionally aggressive plan, in so far as getting our parts made in Canada. We have endeavored at every possible turn, to interest Canadian manufacturers in adapting these parts which we now import, going so far as to communicate with them and endeavor to interest them in regard to getting blue prints, engineering data, etc., and arranging to give them a special contract which gives them exceptionally favorable conditions. We have in view, that within a period of twenty-four months, our car shall be an entirely Canadian-made product; there may be a few little accessories imported, but nothing to amount to anything.

Production in 1919 was not increased to any extent, in fact it remained just about the same as the previous year, and we considered ourselves fortunate in getting away with it. Our present output is two and a half times our last year's capacity, and we are making even larger plans for the following year.

Market conditions are extremely brisk. There has been a remarkable demand for our product, but whether it is due to our popularity in price and covers only our class, the writer is unable to state. He does feel that of course a certain amount of it is due to our name and brand. On the other hand there seems to be a general condition that the market is quite favorable towards automobiles generally. The price tendencies are towards a further increase, and automobiles will be higher before they are sold at a lower price. The large demand for automobiles runs between $1,000 and $2,000.

The outlook is extremely serious this coming year, due to the steel and coal strikes which have been in progress, which makes it hard for us to get materials and get back on a basis where we can keep up production. The demand will be far in excess of the quantity of cars manufactured this year. The types of cars will run between the four-cylinder and the six-cylinder; the multiplicity of cylinders having been discontinued to a large extent, on the market, and the general tendency being for the average person to-day, to wish to buy a four-cylinder car, and those that wish to go in for a little more luxury, sometimes are buying six-cylinder cars, but the average commercial business car to-day is along the four-cylinder line, more than it has been in the past five years.

We have just taken over the entire building and plant of the Wm. Gray-Sons-Campbell Company, which gives a floor space almost twice our present size, and is enlarging our capacity double. Our plants operate on an eight-hour basis, and it is our intention to continue so to do. We have been running on that basis for the past year and a half, and have found it very successful with our men, being appreciated by them, and giving good results.

DEVELOP MANUFACTURE OF PARTS

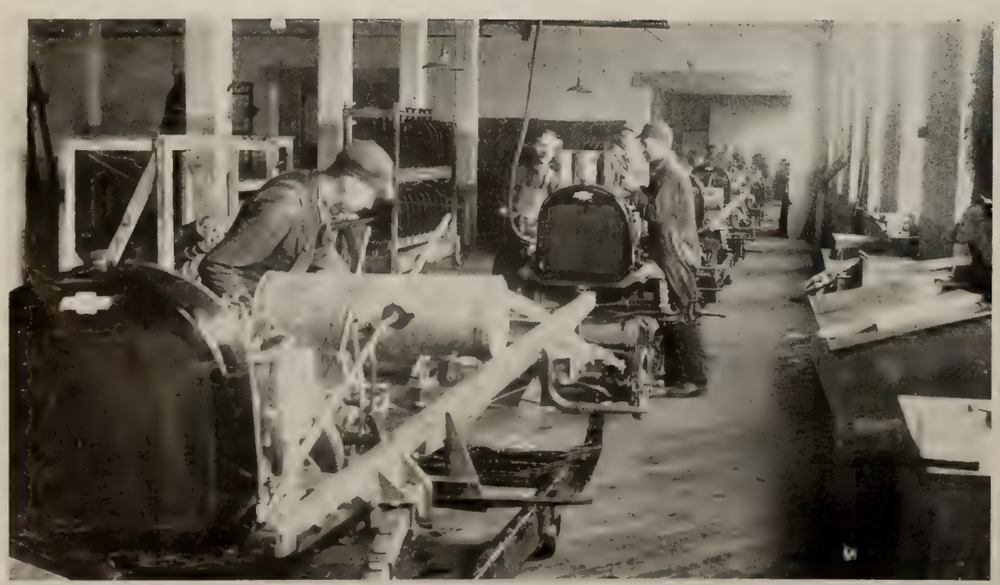
By Jas. L. Acker
National Steel Car Co., Limited, Hamilton

We have found it very difficult during the year to get good mechanics. There has been a very noticeable shortage of good machinists, tool makers, and jig makers. There has also been a considerable shortage in raw materials and the quality is not up to the standard. As a result general operations have been considerably retarded owing to the fact that we have been unable to get good mechanics and raw materials.

We have developed to a considerable extent the manufacture of parts in our own plant, and we are buying Canadian-made parts, where and whenever it is possible to obtain same. We have in view manufacturing our own parts to a greater extent as soon as it is possible to do so. Our production has been increased quite considerably during the year and our present output, as compared with a year ago, is increased fully 300 per cent.

The demand has been fair for our class of motor trucks, and we have been able to produce up to the demand. Price tendencies are upward. Up to the present time we have not gone after motor truck export business, but we have received

(*Continued on page* 248.)

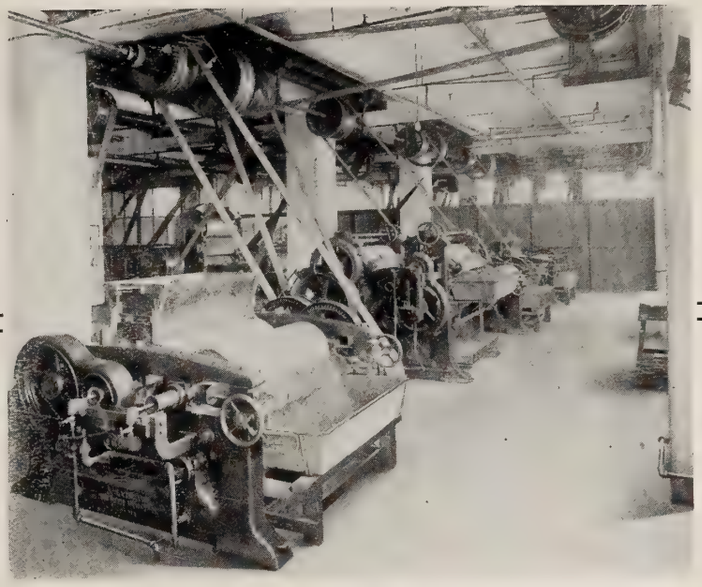


An interesting scene in an automobile factory, showing how cars are passed along from man to man during the process of assembling.

Photo by courtesy of General Motors of Canada, Limited

The Biscuit and Confectionery Industry

CONDITIONS in the biscuit and confectionery manufacturing industry, which are elaborated in the following reports from a number of manufacturers, were never more active than at the present time. The important factor has been the heavy export demand which has given a large opening for surplus output. Concurrently with strong markets both at home and overseas, there have been serious obstacles to production both in the way of scarcity of help in factories and shortage of raw materials. This has led in some cases to a forced curtailment of export shipments. So great has been the demand for confectionery, however, that factory enlargements have been quite general and more are contemplated. Practically all manufacturers unite in the opinion that 1920 will prove a busy year, with demand well maintained.



Chocolate Refining Machines in a Canadian Confectionery Plant

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A GENERAL REVIEW OF THE INDUSTRY

By F. W. Bean
Bean & Westlake, Limited, Woodstock

The past year has been a most exceptional one in biscuit and confectionery manufacturing in Canada. The British market has been open to take Canadian confectionery in almost any quantity. The home demand has been abnormally large. These two factors, added to the shortage and unrest in labor, together with scarcity of materials and troubles in transportation, have kept the production man on the alert all the time in his efforts to give satisfactory service.

The keen demand at home and abroad has been a great incentive to greater production. Factories have been enlarged, more machinery installed, and generally speaking, the production has probably been the largest in the history of the country. Girl labor has been the one great drawback. In the past four years women have been utilized to such a great extent in so many new callings that confectionery and biscuit manufacturers, almost without exception, have been unable to secure sufficient of this class of help. This has tended to eliminate hand work, and to stimulate machine production.

A remarkable feature of this year's business has been the insistent demand for high-class goods. Quality, rather than price, has been the deciding factor. In fact, the market for cheaper grades of biscuits and confectionery has been almost a negligible quantity. This demand has not been confined to the high-class city trade, but has been as steady in the rural communities as in the industrial districts. The four years' war in Europe, and the consequent cessation of manufacturing in the belligerent countries, has created almost an insatiable demand there for confectionery, and particularly, for high-grade chocolates. This has been especially true of Great Britain, although in France and the Scandinavian countries much Canadian and American export business has been done. A decade ago, Canadian chocolates were not in the first-class, but great strides have been made in the industry in the last few years, with the result that to-day Canadian chocolates are recognized as among the world's best. The re-establishment of British factories will no doubt tend to curtail export from this continent, but it is felt that the intrinsic merit of Canadian goods will continue to command a fair trade, both in Britain and throughout the world.

The year 1920 is looked forward to with the most optimistic feelings by the Canadian biscuit and confectionery manufacturers. It is felt that there will be no diminution of the export demand during the coming twelve months, and that the general prosperity of this country will guarantee ever-increasing home markets. The majority of factories have enlarged their capacity. The floor space of our own plant has been increased twenty per cent., and new machinery added to a like extent. We also propose to further increase the machine production another twenty per cent. this year. By the end of the year, the additions made and contemplated in Canadian factories should be sufficient to meet the requirements of the home market, but this condition will only exist when foreign production has assumed something like normal proportions.

DEMAND FOR CONFECTIONERY INCREASES

By Jas. W. Moir
President, Moirs Limited, Halifax, N.S.

The general manufacturing conditions during the past few years have made factory management a strenuous and difficult task. Raw materials have been scarce, difficult to procure and sometimes some materials were unobtainable. Labor has been scarce and most unsettled. Notwithstanding, our production has been constantly increasing for a number of years, and is now greater than a year ago. With regard to marketing conditions, the demand for the higher-priced and more expensive goods has increased, while the demand for the ordinary qualities and cheaper lines has not increased.

Our export trade has been mostly confined to Newfoundland and Great Britain. Our Newfoundland business has increased during the past few years. In 1914, shortly after the start of the war, we sent a man to England to introduce our

chocolate confectionery. He met with instant success, and from that time until the present, we have been making constant and considerable shipments to England and Scotland, except during some rather long periods, in which we were unable to procure transportation. We believe we were the first Canadian confectioners to make a success in the English market.

We think the outlook in the confectionery business is fairly good. The demand appears to be increasing. The manufacturing facilities in different parts of Canada are being enlarged, and if these capacities do not become too great for the demand, we think the business should remain fairly satisfactory. We have been thinking of factory enlargement, but owing to present high cost of building we have not up to this date decided on any definite plan in this respect.

Regarding our own operations, our biscuit business is not very large, and is confined mostly to Nova Scotia. We ship our high-class chocolate confectionery, which is our chief specialty, to all parts of Canada, and are doing a good business in this line in every province of the Dominion, and in Newfoundland and England. The demand for these goods (our chocolate confectionery) is greater than we can supply with our present facilities.

INCREASED PRODUCTION MATERIALLY

By H. N. Cowan

President, The Cowan Co., Limited, Toronto

Early in 1919 we had some trouble with our girls. Perhaps we were not paying them enough, although we were paying as high wages as other factories employing girls doing similar work. We raised our wages and have made two advances since. We are now paying high wages throughout our factory and we are certain that our work people are contented. Prices for all raw materials have steadily advanced during the year, and we are inclined to think we may still see higher prices in 1920, particularly for sugar.

We increased our production in 1919 very considerably over 1918, and our output was greater. Of course we have added very considerably to our plant, but taking this into consideration the increased production is very satisfactory.

There is an increasing demand for goods of the best quality and we are turning out practically no cheap quality goods at all. We are getting good prices and can sell more than we can produce. We are doing some export business, most of it with the old country. We could do more if we could produce the goods.

We look for a big business in 1920, both in Canada and for export. We think the export demand will likely keep up for at least a year. We are building a very large addition to our factory, which, when equipped, will enable us to nearly double our output.

We are manufacturers of cocoa and chocolate and solid chocolate confections. We do not make confectionery or candy. We consider cocoa and chocolate to be very necessary foods and the demands for them is steadily increasing. Even if we have hard times in this country, as Mr. Drury predicts, and we do not agree with him, we do not think it will affect our business seriously, because, cocoa and chocolate are necessities, not luxuries.

STEADY DEMAND FOR QUALITY GOODS

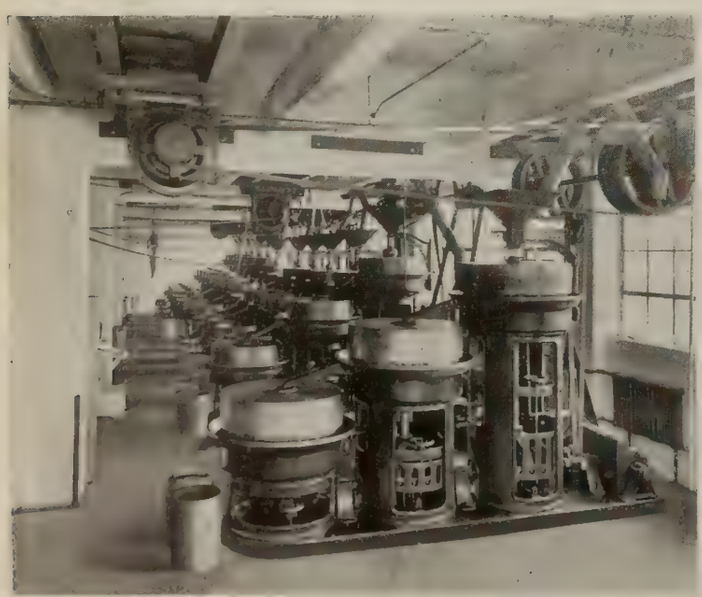
By T. W. McFarland

President, D. S. Perrin & Co., Limited, London

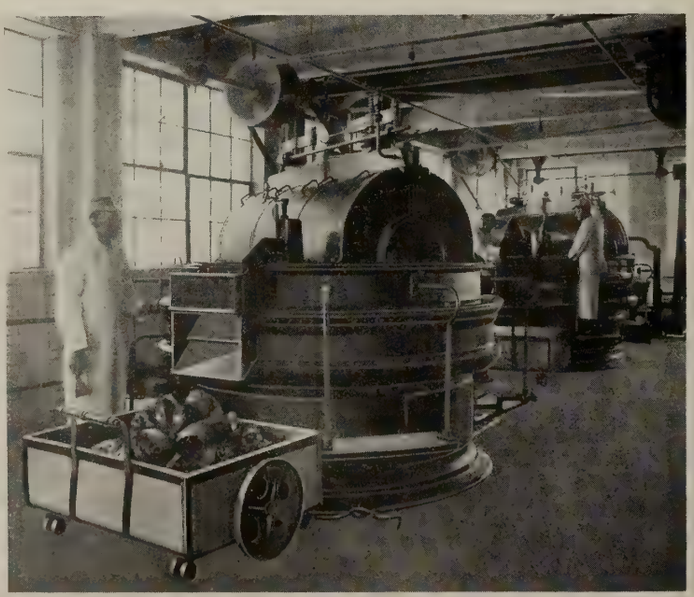
Conditions as regards labor supply in London have not been very satisfactory. It has been impossible to secure sufficient and satisfactory female help. Our own factory's requirements have been short for the last three months, of over a hundred girls. It is judged that the city is approximately short of about 1,000 girl help in the factories. Male help can be had, but of a very indifferent quality. Skilled help is not procurable, and the claim that there can be just as much goods produced in a shorter day is nonsense. Our experience has been that in cutting off one hour of our day, we have a full hour less output. Raw materials have been very difficult to procure in many instances, and we can only get them at a very much advanced figure.

Production has increased over 1918, which in our business was a very poor year, owing to the Food Board's restrictions. The confectionery part of our business shows an increase over 1918, though only slightly over our output for 1917. Biscuits, however, show a considerable increase this year over both 1917 and 1918, largely caused by concentrating

(*Continued on page* 262.)



Triple Mills for Grinding Cocoa Beans



Mixing or "Melangeur" Machines

Photos by courtesy The Cowan Co., Limited

The Boot and Shoe Industry in Review



View in the Welt Department of a Canadian Boot and Shoe Factory

THERE is a good deal of unanimity in the reports of boot and shoe manufacturers regarding conditions in this particular line of industry. Apparently considerable difficulty has been experienced all over the country in procuring skilled help. Ordinary labor has been in better supply. As for raw materials the general report is that these have been scarce in quantity and high in price, though in some quarters an improvement over the preceding year has been felt. Production has been considerably increased both through more active operation of plants and by an enlargement of capacity on the part of several companies. This development has resulted from the strong demand for boots and shoes which has seemingly exceeded the ability of manufacturers to meet. Not only has the demand been keen in the domestic field, but it has also been very active in the export market, and several companies have been doing an active business overseas. To this export demand is attributed a large part of the high costs now prevailing in the industry.

Manufacturers are reporting a demand for goods of the best quality. The people want the best grades of boots and shoes, and seem to be prepared to pay any price for them. This is a feature of the present situation. So far as the outlook is concerned, some uncertainty is expressed, though most manufacturers look for continued strength and activity throughout 1920. Here and there a note of warning is sounded relative to possible over-production through too great an extension of capacity, and mention is also made of tariff uncertainties. Both of these factors should be watched carefully.

INCREASE IN PRODUCTION REPORTED

By A. A. Armbrust
The Lady Belle Shoe Co., Limited, Kitchener

Manufacturing conditions have been somewhat abnormal and conditions vary from time to time. The labor question is serious, as it is difficult to get experienced help. During the winter months more laborers will probably be available. Raw stock is high in price and will possibly continue so for some months in the finer lines. Material, however, is not of a high standard due to inexperienced help. In general it would appear that conditions are on a fair way to readjustment.

There has been a decided increase in production so far as our line in concerned. We are practically 100 per cent. ahead of a year ago as our factory is running as near to capacity as it is possible to obtain help. The demand for good shoes is greater than it was a few years ago and the public are realizing that it is as well to buy quality as style. The writer is also of the opinion that the demand for the coming season will be equally large. We have booked a number of export orders, but find it difficult to get sufficient labor to fill orders promptly. There is no question as to the scarcity of materials in the devastated European countries, but we have found that the buyers for overseas are not so ready to do business as formerly. This is possibly due to the extreme high prices, the matter of exchange being an outstanding feature, and also as to the ability of Germany to produce for export. However, the writer feels that if the Canadian manufacturers can get the European trade for a time, they will be able to keep it.

FINDS LABOR SERIOUS FACTOR

By J. Daoust
Daoust, Lalonde & Co., Ltd., Montreal

The labor situation is not very encouraging to the manufacturer, as we have to advance wages mostly every week, so as to avoid strikes or lock-outs. Girl help is hard to get. Raw materials are not so hard to get as they were in July or August.

As to production, we are not producing any more shoes than last year, but we are producing more leather through an extension to our plant. The reduction of hours of labor has had the effect of reducing the output and consequently, in order to maintain the same output, we had to employ more people.

There is a big demand for shoes, but the demand is mostly on high-grade shoes. There does not seem to be much demand in medium and low grade shoes. Export business has been certainly a factor in keeping factories busy, but the exchange situation is paralyzing altogether this export business, and if there is no improvement, the export trade will be killed. The outlook for domestic demand is good, as apparently stocks were depleted and our salesmen are doing very well. We do not contemplate enlarging our plants, as the export trade is too uncertain. We do not see that the price of shoes could come down when labor is asking increases all the time. At the same time, we believe that the future outlook is pretty bright and the country is generally prosperous.

DEMAND FOR SHOES IS LARGE

By J. E. Warrington
The John Ritchie Co., Ltd., Quebec

Skilled labor, such as is required in the manufacture of our product, has been extremely scarce and production has been held back about 25 per cent. on this account. Wages, of course, have increased considerably as is general throughout the country. Raw materials have not only been



Section of fitting room in a Canadian boot and shoe factory, showing bright and roomy character of the accommodation provided for the workers.

Photo by courtesy Tetrault Shoe Mfg. Co.

high in price, but deliveries are considerably behind the date specified, which has caused considerable delay in filling our own contracts. Production with us has increased about 60 per cent. compared with a year ago, due to a large extent by an enlargement in capacity.

In the market for boots and shoes, the demand is larger than at any time in our experience. There has also been a noticeable demand for better quality footwear than in former years, and while prices have been higher than ever before during the past nine months, it has not been a question of price, but of ability to get the goods. In fact, shoes could be sold for almost any price you wish to ask if you had them for immediate shipment. Consequently, market conditions in general, from a selling standpoint, have been exceptionally good.

There is no question, that, taking the export business for both the United States and Canada together, it has been a factor in not only high prices, but also the demand that has been created due to the shortage of materials and manufactured products.

We look for continued good business and high prices during 1920, in fact, expect to be able to sell more than we can produce, and in spite of increasing our capacity last year more than 60 per cent., we have under construction another large wing which will give us an increase in 1920 of about 50 per cent. over this year's production.

OUTPUT GETTING MORE NEARLY NORMAL

By F. S. Scott

Getty & Scott, Limited, Galt

We have found a general improvement in labor, and the supply of raw materials and machinery. Our production today is more nearly normal than it has been for four years, and we have increased output by about 25 per cent. over last year.

We note no change in general demand as regards quality. The trade are buying our best grades, and prices remain high. Export has been quite a factor in our trade, large orders having been received for England and the continent.

We feel that there is a good deal of uncertainty as to the future. The export market, while it may continue for a year or two on the present basis, is rather uncertain. Added to this, the uncertainty which exists in connection with the tariff will cause manufacturers to go slow in the matter of extensions.

In a general way we find the labor situation to be considerably improved. We have no great difficulty in getting all the help we want, with the exception of female labor. Our production at the present time is governed entirely by this class of help and there is a great scarcity of girls as factory operatives.

SKILLED LABOR REPORTED AS SCARCE

By G. H. Ansley

Perth Shoe Co., Ltd., Perth

We have a reasonable amount of unskilled labor offered us, but we have very great difficulty in obtaining skilled labor, or operators for any branch. Raw materials are scarce and it is almost impossible to buy the grades we require. Deliveries are slow and prices extremely high and firm. We are finding it difficult to keep up to capacity on account of non-delivery of machines, parts, lasts, and almost impossibility of obtaining skilled operators.

Production in our factory has been greatly increased, in comparison with a year ago and our output now is one-third more. We have added an extension of 40 feet to this plant and a third storey, giving us a factory 250 feet by 40 feet, three stories, and a capacity of 1,000 pairs a day, which we cannot reach, for reasons already outlined.

Demand has been greater than we can fill; quality is the demand from us. Prices are of necessity advancing because of increased prices in all raw material and every detail of shoe-making. Marketing conditions are fair with us. We are not exporting direct, but we are manufacturing shoes for concerns that we believe are exporting shoes. The outstanding feature is a different line of models and different detail in shoe-making than those we use for Canadian trade.

The outlook for production and distribution is very uncertain. Undoubtedly, there is at present a strong demand for footwear. Undoubtedly most factories are running to capacity of machines and operators, but an increased supply and better delivery of machines and lasts would enable us to teach operators more quickly, and thereby enable us to increase our production. We are using instructors throughout the factory teaching green help.

The outlook for the next few months is centred in producing orders already accepted. Further than completing our already accepted orders, we are not soliciting further business. The outlook for six months' ahead is absolutely too uncertain. The future raw material market is an unknown quantity. We have the opinion that prices will be firm and little chance for decrease in costs in any department.

My own judgment is that it would be policy to go slowly and not book any orders without having the raw material on

hand, and a very careful study of the possibilities of delivery of orders which, as pointed out above, is governed by increased efficiency through machines, lasts, and operators. To-day, and for the past three months, there has been no difficulty in obtaining business. We manufacture women's high-grade goodyear-welted footwear exclusively, and I believe are the only factory in Canada so specializing.

GREATEST DEMAND EVER EXPERIENCED

By Albert Tetrault

Tetrault Shoe Mfg. Co., Limited, Montreal

Labor has been reasonable and fairly considerate of the employer, as a whole, and we can say that conditions in our own industry in Montreal have been as satisfactory as anywhere in America. This does not mean that the shoe workers of Montreal did not get sufficient advances in their scale of wages, but that these advances were made on a basis of mutual concessions.

We cannot say that there has not been enough raw materials to meet the demand, but rather a scarcity of specially desired materials at certain given times. Conditions are slowly getting normal.

Manufacturers ordering machinery have had to wait many months before getting deliveries. General war conditions as to deliveries still apply as the demand has been unusual for new machinery on account of the necessity of larger plants and equipment to keep volume. Daily ratio of production for each machine has been less.

Our own production has been increased by 100 per cent. in a year's time, and will be again increased over another 100 per cent. by March 1st next. We figure our own progress on that score to be altogether out of proportion when compared to the boot and shoe industry in general. Despite this much greater capacity and production, we are sold until June 1st. Of course the reason of this enlargement of our capacity is on account of acquiring another plant with a capacity of about 85 per cent. as much as our original plant.

To this new plant we have built an addition, adding about another 115 per cent. capacity of original plant, making total additions to original plant capacities during the year of between 200 per cent. to 220 per cent., our capacity rising from about 2,700 pairs daily to about 8,000 pairs.

We are experiencing by far the greatest demand for Canadian boots and shoes that ever existed. Shoes are also following the general trend in all articles for better quality and manufacturers are striving and succeeding partly in meeting that demand. Prices of course are sky high, but mainly the result of higher cost of raw materials, but it is a well-known fact that Canadian prices have not advanced as much as American prices.

Though export business has been comparatively very satisfactory, we know that it has not been a factor, as very few firms have had an export policy or export sales organization. Export business is considered by most manufacturers as a source of all kinds of troubles, which they are not willing to tackle. We are rightly considered the largest exporters of boots and shoes in Canada but we must state that our export business has not been 10 per cent. of our total sales.

We believe that with present enlargements, the shoe factories of Canada, for the present, are well able to take care of the demand. We are going to import still less shoes from the United States unless too drastic lower revisions of tariff are made, as in practically all lines Canadian manufacturers can supply the customers' demands. There is no doubt that the average quality of shoes made in Canada is much superior to that of 1914's production. Our plans for enlargements of factories are at present complete, and it will now be up to our own sales force to keep factories running 100 per cent. We feel that for the next six months the retailers will be faced with the hard problem of getting deliveries in time of lines in demand. There is no doubt that it will be a question of having the goods, not of their price. After this period we do not care to prophesy, but we firmly believe that the boot and shoe industry will at least follow Canada's prosperity.

DEMAND AND HIGH PRICES TO CONTINUE

By Maritime Manufacturer

While there has been more labor available during 1919 than during the war, at the same time there is no surplus, particularly in skilled help, and wages have advanced very materially during the past year and are still advancing. In raw materials there has been a considerable scarcity of high-grade leathers, particularly upper leathers. This condition still obtains. Prices of raw materials in leathers have advanced tremendously during the past year. While deliveries of new machinery are slow, at the same time we have not experienced any great amount of difficulty in procuring what we have required in that line. The cost of power on account of increased prices of coal and labor prices has advanced somewhat during the past year. As to general operations we might say that wages of all kinds, from one end of our business to the other, have advanced very materially, and the cost of doing business has been very much increased thereby. Export business has not been a factor with us and we

Section of bottoming department in a Canadian boot and shoe factory, showing extent of capacity provided for this operation.

Photo by courtesy Tetrault Shoe Mfg. Co.



would hardly look forward to it ever being much of a factor in our business on account of the exclusive high-grade quality of shoes that we are making. While undoubtedly there would be some foreign demand for our class of shoes, we do not think the demand would be large enough to ever amount to a great deal. If we were making a medium or lower-priced line we think the foreign demand would be very much larger and the opportunities of doing export business very much greater.

As far as we can size up the whole situation, there will not be any decline in prices on our grade of shoes, as we do not anticipate leathers decreasing to any extent within the next few months. Indeed, in some lines, it is stated by some leather manufacturers, that their prices may soon be slightly higher. We do not look for any lower labor costs, in fact they may be slightly increased. As to distribution and demand in general for our product, we would anticipate as good demand for the next few months or year, as there has been during the past year at least, and if business conditions remain settled and normal throughout the country, our business should show a reasonable increase for the next year.

With regard to output, we may say that the number of pairs that we are making to-day is not nearly as large as it was in pre-war days, probably about 75 per cent. to 80 per cent. as large. The volume in dollars, however, on account of the increased prices of stock, etc., has been very materially increased. As to further factory enlargement, we would hardly feel safe in going ahead with any enlargement at the present time, until at least, such time as tariff conditions in Canada become settled, and we can look forward with reasonable assurance to the continuance, for a number of years, of settled tariff conditions.

Statistics of the Boot and Shoe Industry

Compiled by Dominion Bureau of Statistics for year 1918.

Capital invested (152 establishments)	**$31,493,152**
Land, buildings and fixtures	**5,306,982**
Machinery and tools	**3,313,338**
Materials on hand, stocks, etc.	**14,829,317**
Cash, accounts and bills receivable	**8,043,515**
Employees on salaries—1,065 males; 381 females.	
Salaries paid	**$2,037,529**
Employees on wages—6,760 males; 4,128 females.	
Wages paid	**$6,787,760**
Cost of raw and part. manufactured materials	**$25,227,448**
Leather of all kinds	**18,009,401**
Supplies of all kinds	**7,218,047**
Value of production for year	**$43,332,932**

CONDITIONS BECOMING MORE FAVOURABLE

By Geo. A. Blachford

Blachford Shoe Mfg. Co., Limited, Toronto

During the year just closed our experience as regards labor has shown an improvement. While in our particular line it seems to be impossible to obtain experienced operators on the major machines, still we have succeeded in getting a better class of unskilled labor to teach which we were unable to do previous to 1919.

In the matter of materials, there has been no difficulty in making purchases if one wanted to pay the price, but deliveries have not been all that could be desired and, while during this year we have not been materially inconvenienced through slowness of deliveries, our supplies in certain commodities have been run very close. There has been considerable delay in getting machinery, and at this present time, we have two important machines on order since last June which are still undelivered. One of them we understand is about to be shipped, and the other one may be shipped some time.

In the matter of production a marked increase has taken place as far as we personally are concerned, and from what we hear we think an improvement in this matter has also taken place in other factories, but to what extent we cannot say. The first six months of the year our production was low, improvement starting to show itself the latter part of August, since when our output has shown an increase pretty nearly every week. We took on some additional space last summer which helped the situation, but the fact that we could get people to teach and finally become producers, has been most responsible for this improvement.

The past year has seen a very severe upward movement in the price of footwear commodities with a demand so heavy that we have been unable to keep up with it. Increased prices have apparently had little detriment to purchasing and the trade have continued to demand the very best grades procurable. Domestic marketing conditions have been very easy, and we understand in several instances travellers have had to refuse business, being unable to take care of all that was offered. In our particular instance export business has not been a factor. We have done a small export trade, which, while it has not been a factor, has, however, been of benefit to us inasmuch as the export orders have called for materials and shapes which worked towards a larger production which perhaps we could not have obtained on strictly domestic business.

It is practically impossible to deal with the outlook intelligently. Things are happening to-day that we did not think of yesterday, and we loathe to give very much of our opinion as to the future, because conditions may arise which would be entirely contrary to what we might expect from conditions at this time of writing. Personally, we feel that the next few months may produce a condition whereby the demand for footwear can be met more reasonably on time. The general condition in the world's markets for leather and hides is very uncertain and, of course, just how this develops will have a great deal of bearing on the shoe manufacturing industry and what that development will be we cannot say.

QUALITY GOODS ARE IN DEMAND

By D. Marsh

The Wm. A. Marsh Co., Limited, Quebec

Our experience during the year has been that labor of the skilled variety has been scarce in certain branches of the factory. This, however, is now being overcome to some extent by breaking in new help, but is being offset very largely by the increased capacity which a number of local manufacturers are adding to their factories. On the whole, however, so far as our particular factory is concerned, labor conditions are better than they were a year ago.

Raw materials have advanced very materially in price and some classes are out of the market almost entirely, which has necessitated our abandoning certain lines of shoes and concentrating our efforts on the lines for which materials were available.

Our production has increased very materially over that of a year ago. We would not say that this is general in the trade in Quebec, as our production of a year ago was considerably below normal owing to particular circumstances in our own factory, and our output at present is probably 75

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The Canning and Preserving Industries



Sorting Peas in a Canadian Canning Factory

Photo by courtesy Dominion Canners, Limited

SUMMARIZING results for the past year, it may be said that production averaged up about to normal, while demand for all packs continued strong. The cost of operation was heavy, and there is apparently little prospect of any decline in price for some time to come. Export demand has been very heavy, though it is pointed out by one manufacturer that this condition is likely to be only temporary, and that Canadian products may be driven out by the more cheaply produced vegetables and fruits of Italy, when the situation in Europe returns to normal. In the meantime the outlook is very favorable for 1920.

OUTLOOK FOR THE JAM INDUSTRY

By J. Wagstaffe

Wagstaffe, Limited, Hamilton

Our opinion is that jams will be higher next season on account of sugar being higher, farmers asking from 15 to 25 per cent. more for their fruit, labor being higher, and general working expenses all through being higher.

Domestic trade is good, also export trade. Export trade would be better, were it not that exchange is against us at the present time.

We are enlarging our plant about 40 per cent., this being the second addition that we have put on this season.

Generally speaking, the outlook for the next twelve months for the jam business is very favorable.

OUTLOOK IN CANNING INDUSTRY GOOD

By W. R. Drynan

Secretary-Treasurer, Dominion Canners Limited, Toronto

This past year our supplies have been fairly satisfactory, though labor has not been as efficient as it used to be. We have no complaint to make regarding the quality of our raw materials. Our production in 1919 exceeded the previous year on tomatoes and corn, but was less on peas and fruits.

Government regulations have tended to restrict trade and increase costs, though on the other hand some regulations have been beneficial. We have found that demand has been good both for domestic and export requirements, with supply not up to the demand. Shipping facilities on the whole have been quite satisfactory and better than the previous year.

The trend of prices has been higher and must continue high for another year at least, as all of our future contracts for supplies, which we necessarily must make at this season, are at prices not lower than last year and in a number of instances higher.

The outlook is good, provided conditions continue as at present, though we do not look for any marked expansion. Export trade will probably tend to fall off. We do not anticipate any difficulty in securing supplies of raw materials.

REVIEW OF CONDITIONS IN CANNING INDUSTRY

By Hon. E. D. Smith

E. D. Smith & Son Limited, Winona

In the canning business we seldom or ever have efficiency of labor. It is a seasonal business, and by the time we require our help every available man, for many years past, who is an efficient workman, has already secured a permanent job, and so the canner has to content himself with carrying, at great expense, a few absolutely essential men throughout the year, doing his best to try to find some work for them in the off season, and then for the balance take what help he can get which is sure to be inefficient, and so the canner has no easy task at any time. At times like these, when restlessness is more than usually prevalent, the canner

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State of the Dairying Industry in Canada



Interior of a Canadian Cheese Factory, showing the Presses and Curd in the Sinks

By J. A. RUDDICK
Dairy Commissioner, Ottawa

THE improvement of transportation and storage facilities during the past 15 years has brought dairy products into the field of international commerce, and it follows, therefore, that the situation in Canada is affected very materially by the conditions which prevail in other countries. Prices are no longer governed by local conditions, but rather by the general demand and the world's total supply.

In order to arrive at a clear understanding of the position of the Canadian dairying industry at the present moment it will be necessary to review very briefly the international situation as it was in pre-war days, during the war, and as it exists to-day.

Down to 1914 the United Kingdom was the principal world's market for dairy products, importing every year, under normal conditions, more than twice as much as all the rest of the world combined. The following figures show the imports of butter and cheese in 1913 as compared with 1918:

IMPORTS INTO THE UNITED KINGDOM.

	1913. Cwts.	1918. Cwts.
Butter	4,139,022	1,614,625
Cheese	2,297,579	2,357,822

Before the war Denmark exported 200,000,000 pounds of creamery butter annually, most of which went to the United Kingdom. During the early part of 1919 Denmark was barely making sufficient butter to supply her own people. There has been a decrease in the number of cows and a great shortage of the concentrated feeding stuffs on which the Danish farmers rely so largely. Further, the manufacture of margarine had ceased in Denmark owing to the impossibility of securing supplies of raw materials. Production has increased in Denmark during the past season and they are now exporting relatively small quantities to Switzerland, Belgium, France, Norway and Sweden. Only a very small supply reaches the United Kingdom because the other countries are ready to pay a higher price than that which can be obtained in the United Kingdom under the system of fixed prices and control of distribution which still prevails there.

Ten European countries exported a total of about 500,000,000 pounds of butter annually previous to the outbreak of war and none of these countries at the present time, with the exception of Denmark, has any surplus for export. On the contrary they are all in the market to purchase limited quantities at very high prices.

While the war was on the United Kingdom was the only country in Europe that was able to secure supplies of dairy produce from overseas, but with the shipping blockade lifted the market is enlarged by the demand from continental Europe at prices exceeding the controlled prices in England. The United Kingdom is still able to secure supplies of cheese and butter from Australia and New Zealand, having contracted the available exportable surplus from these countries to August, 1920, at 38 cents per pound f.o.b. for butter, and 21½ cents f.o.b. for cheese.

There has been some criticism in Canada of the policy of fixing prices and the control of distribution in the Old Country, but one ought to consider the peculiar and dangerous situation which existed and still exists before blaming the authorities in this matter. If the trade in dairy products in the United Kingdom has been left open to competition, the limited supply would have forced retail prices up to such a level as to be prohibitive for the working people, upon whom the supply of munitions and other war activities depended. Very serious results would in all probability have followed such a condition. The policy of control ensures that every person, rich and poor alike, receives the same quantity, and while there is some grumbling, those with limited means accept the situation much more cheerfully when they know that those able to pay any price are obliged to come under the same regulations as they are. The butter ration, which has been 1½ ounce per week for some time past, was lately reduced to one ounce per week, or just about as much as many of us in this country use at one meal.

Dairy production in Canada, Australia and New Zealand was not interferred with by the war, but there would have been a larger increase in production had a greater supply of labor been available. A severe drought is now curtailing production in parts of Australia. Canada is in a fortunate position, being the nearest to the United Kingdom of any important source of supply. A ship will make five voyages to a Canadian port during the time it will take to make one voyage to Australasia, and for that reason there was during the war, and still is, a great accumulation of produce in both Australia and New Zealand. For some time there was practically one year's make of cheese on hand in New Zealand. This accumulation is now coming forward and that accounts for the apparent indifference on the part of the Ministry of Food respecting the 1919 crop of Canadian cheese.

Early in July representatives of the Committee on Food Supplies of the Ministry of Food offered to take 20,000 tons of cheese at 25 cents per pound delivered in Montreal. The full quantity has not been offered to date. Practically no sales have been made for United Kingdom account since October 1st, the available surplus having been shipped to the continent of Europe, or at least purchased with that end in view. The exchange situation is, at the present moment, in-

terfering somewhat with this trade, but the continental market is still nominally higher than the price offered on behalf of British authorities.

The production of milk has increased in Canada during the war period. During the first two years the production of cheese increased, but it fell off again in 1918 and 1919 owing to the diversion of a large quantity of milk to the condensaries and milk powder factories.

The manufacture of creamery butter continues to increase in every province, although Ontario and Quebec continue to produce the great bulk of both butter and cheese. The prairie provinces are becoming every year more important sources of supply. In 1912 there was not sufficient butter made west of the Lakes to supply the local markets. A considerable quantity was imported from New Zealand and on an average of one carload per day was shipped into that territory from Eastern Canada. During the past year the local markets have not only been supplied, but New Zealand butter has been shut out and there has been a large surplus for export. It is only a question of time until a very large dairy industry will be developed in the prairie provinces. The manufacture of creamery butter is also increasing steadily on sound lines in the Province of Nova Scotia and there is a revival of interest in the dairying industry in the Province of New Brunswick. The industry has been well developed for many years in Prince Edward Island.

The manufacture of condensed milk has increased largely since the outbreak of war, and will reach about 100,000,000 pounds in 1919 with a value of something like $18,000,000. The milk powder output is also increasing rapidly. The total value of the cheese, creamery and dairy butter, condensed milk and milk powder, market milk and cream, ice cream, etc., for 1919 will be very nearly $250,000,000, of which about $65,000,000 worth will be exported.

There is no "reconstruction" necessary in connection with the dairying industry in this country. The market is assured. It is easily accessible. Our products generally stand high in regard to quality and are favorably received in the markets abroad. When conditions get back to normal on the continent our exports will probably again be confined almost wholly to the United Kingdom. This market is prepared to take greatly increased quantities of both butter and cheese from Canada. Canadian cheese is the standard article on that market. It leads all other imports in point of quality, price and general favor. The position of our butter on the British market will improve as we increase our shipments, and thus ensure regularity of supply. The outlook for dairying in Canada was never brighter than it is at the present moment.

Statistics of Canada's Dairy Industry

From "Bulletin of the Dominion Bureau of Statistics"

	1916	1917	1918
Number of dairy factories	3,446	3,418	3,371
Number of creameries	993	949	989
Number of cheese factories	1,813	1,900	1,885
Combined butter and cheese factories	624	549	476
Condensed milk factories	16	20	21
Production of creamery butter	82,564,130 lbs	87,526,639 lbs	93,266,876 lbs
Value of creamery butter	$26,966,355	$34,274,218	$41,845,164
Production of factory cheese	192,968,597 lbs	194,904,336 lbs	174,881,957 lbs
Value of factory cheese	$35,512,622	$41,180,623	$39,457,358
Production of condensed milk		32,105,799 lbs	41,195,604 lbs
Value of condensed milk		$3,811,281	$5,740,898
Production of evaporated milk		29,415,012 lbs	38,612,367 lbs
Value of evaporated milk		$2,635,952	$4,048,055
Production of milk powder		3,979,514 lbs	5.530,915 lbs
Value of milk powder		$817,287	$1,388,248

The Canned Salmon Industry of British Columbia

By H. BELL-IRVING
H. Bell-Irving & Co., Limited, Vancouver

WAGES have steadily advanced and are likely to be as high or higher during the coming season than ever before. The price of fish in the open market has never been higher than last season, and is not likely to be less, in view of the probability of fishing being thrown open to all, involving multiplication of gear and reduction of catch per head.

Operating conditions are becoming worse owing to increasing uncertainty of obtaining supplies of fish. The species of salmon of higher quality have become seriously depleted. Whereas fifteen years ago the British Columbia salmon pack consisted almost entirely of the higher species, only about 25 per cent. of the pack is now of that quality. This year's pack decreased about 20 per cent. as compared with the pack of last year.

The demand for canned salmon of the highest grades is excellent everywhere. Prices are higher than ever before. The lowest grade of salmon—chums—can only be sold at a loss. Most of the pack, both this year and last year, is still unsold. The export market in Europe is somewhat stagnant in view of the difficulty in exchange and the high cost of freight.

The outlook for the future of the salmon industry in British Columbia is poor, in view of the ill-considered fishery legislation. No settled policy has been pursued. The administration of the British Columbia Fisheries from Ottawa has been a dismal failure, and has resulted in useless expenditure of money, higher cost to the consumer, and depletion of the fish supply. The once wonderful Fraser River fisheries are now a thing of the past.

The salmon fisheries of British Columbia having for many years past in all important areas been largely overdone, there is no possibility for expansion, except in the packing of lower grade fish hitherto not in favor.

With regard to new lines of business, the packing of herring and pilchards has been taken up by several concerns with varying success. This business is still largely in the experimental stage, but there are probabilities of its developing into a substantial business. The shipment of dry salted herring to the Orient continues on a large scale, and also shipment of fresh fish throughout this continent.

The Furniture Manufacturing Industry

CONDITIONS during the past year in the furniture manufacturing industry in Canada have conformed pretty closely to those in most other industries. That is to say, skilled labor has been scarce and raw materials have been high-priced and difficult to procure. Production on the whole has increased somewhat, though it has not equalled the demand, with the result that stocks on hand have been reduced. The better grades of furniture have been mostly in request and marketing conditions have been unusually easy. Export trade has not been a factor of any consequence, though manufacturers report that they could readily dispose of furniture in overseas markets were they in a position to make it. The outlook for 1920 is regarded as favorable so long as production can be maintained uninterruptedly.

HIGH PRICES INTERFERE WITH EXPORT

By Thomas McGill

McGill Chairs, Limited, Cornwall

Manufacturing conditions during 1919 as regards labor, raw materials and general operations have been fairly satisfactory. Production was slightly increased, and compared very favorably with 1918. As to market conditions, we have found a greater demand for the better class of furniture than in the past. We find that the great increase in prices has interfered with the demand from abroad, and we have been asked to cancel all orders on file. Our opinion is that the prospects for furniture business look very good, but we consider we have an ample number of furniture factories in Canada to supply any demands.

STOCKS LOWER THAN A YEAR AGO

By Thos. Bell

President, The Bell Furniture Co., Limited, Southampton

We cannot complain very much as to manufacturing conditions during the year. Labor has been fairly easy with us. While there has been a certain amount of unrest, it is not serious, and for the past year our factory has been running up to normal. Raw materials have advanced considerably in price, but we have found where contracts were placed early, delivery has been made rapid enough for our requirements. Production has increased considerably over last year, but hardly as much as our sales, with the result that stocks are very much lower now than a year ago.

The tendency has been towards a better quality in furniture, especially in complete suites. Prices are naturally much higher and marketing has been easy during the past six months, as we find the stocks in the hands of the retailer are not heavy and a great many of the factories have gone into making special lines such as phonograph cases, which has curtailed production. Export business has never been a serious factor in the furniture trade. We are, however, finding a great many inquiries from the Old Country. We do not believe, however, that the Canadian factories will be able to take up this matter for some little time, owing to a shortage of goods for the home market.

The prospects for the furniture industry look very good at present. The demand is likely to keep up for some little time. We think, however, the manufacturing facilities of Canada are adequate to keep pace with the demands should the factories be working on their regular lines. We are planning to enlarge our dry kilns so that we may be in better shape to speed up production, but it is not our intention to add to our factory.

UNABLE TO ACCEPT ALL ORDERS

By Beach Furniture, Limited

Skilled labor has been difficult to secure, though we have not been handicapped for lack of same. Raw materials have been soaring continually, and in some cases have been almost impossible to secure at any price. Production has increased probably 25 per cent., though we cannot say definitely as our line has changed considerably.

The demand for furniture has been for the medium and better grade, though retailers would purchase anything offered, owing to the exceptional heavy demand for goods. We have been unable to accept all orders offered for home consumption.

The present outlook in the furniture industry is very bright. While trade in Montreal has fallen off considerably, we find other parts of country flourishing. In fact, orders are very easy to secure at present. We believe the demand for goods at present is caused by the large number of marriages, building, etc., and also due to a certain extent to large wages paid for help.

HIGHER PRICED FURNITURE IN DEMAND

By D. M. Wright

President, the McLagan Furniture Co., Limited, Stratford

Reporting as to the years' experience with regard to manufacturing conditions as they pertain to labor and raw material, would advise first that the problems in dealing with labor have throughout the entire year given us more or less concern, and while things seem to have settled down for the present, we would not be surprised if labor conditions in the early spring might not be more acute in Canada than they have at any time during this past year. With regard to raw materials, the tendency in most lines is still upward, and we are not anticipating any reduction in raw materials generally until the labor market becomes more settled; so that on the whole the tendency for lower prices on manufactured commodities is still somewhat remote.

In the matter of production—while our sales show a very considerable increase over 1918, yet it has been almost entirely made up in the increase in prices, as the actual number of pieces turned out this year is very little in excess of that of 1918. As to demand for furniture this year, we may state that the higher priced goods are very strongly in the lead, and the ability to sell expensive lines of furniture in Canada was never so easy as it is at the present time.

With regard to the opportunity of doing export business, we may state that we are of the opinion an almost unlimited amount of export business would be available to the Canadian furniture plants at the present time, providing they were in a position to bid for the business, but the demand in the home market has been so strong, and skilled labor so scarce, that it has kept the plants fully occupied in supplying the home market. There is also a feeling that the ability

to supply foreign markets at the present time is more or less temporary, and that as soon as things become normal in the European countries, that it would be impossible to compete as a result of their having cheaper labor, etc.

With regard to the outlook for 1920, we would state that we see no evidence of any slackening of the demand so far as the spring trade is concerned, but should there be a railroad strike or any general upheaval in manufacturing or marketing conditions, we believe that there would be a very sudden and very serious break; and we believe that there would be more or less good judgment displayed by manufacturers in being prepared to meet a reaction in trade which might be brought about by the conditions above mentioned.

Many manufacturers are no doubt at the present time in the same position as this factory, namely, their present demand for goods would quite justify substantial additions to their plant, but in view of the extraordinary cost of building and equipment, coupled with the uncertainties of the future, they feel inclined to move cautiously in this direction until labor conditions become more settled.

ONLY RUNNING AT ABOUT HALF CAPACITY

By A. E. Ruby
Secretary, The H. Krug Furniture Co., Limited, Kitchener.

Labor conditions with us seem to be slightly easier, especially for unskilled labor, but skilled labor is still quite scarce. There is some delay in obtaining some classes of raw materials, and prices of some materials are still advancing. We are operating full time, ten hours a day.

Production during the past year was slightly increased, but not to any marked extent, our output being larger but our manufactured stock showing a marked decrease.

The demand for furniture seems to run along the better grade. Prices and marketing conditions have advanced in accordance with the increases in the prices of labor and raw material. We are unable to do any export business owing to the increased demand for home consumption.

The present outlook for the furniture industry appears to be good, but owing to the shortage of help we are able to run slightly more than half capacity, being unable to secure sufficient skilled help. We have sufficient business ahead and would greatly increase our output providing we could obtain help. Under these conditions we have no prospects or plans for factory enlargement.

At the outbreak of the war a number of workmen left the furniture industry, taking up munition work and other occupations where better inducements were offered at the time. The greater portion of this help has not returned to the furniture industry, and has been lost to it owing to better wages being offered in tire and a few other factories in this locality.

NO REASON TO FEAR ANY SLACKNESS

By G. A. Gruetzner
The Hespeler Furniture Company, Limited, Hespeler.

With reference to our 1919 experience in manufacturing conditions, especially labor, we realize that there is only one way to avoid friction, and that is to be liberal with the men regarding pay, and talk matters over with them, in a friendly way, explaining why we insist on certain rules and regulations. Mechanics in the furniture line are very scarce, and they are well aware that trade is exceptionally good.

As to raw material, this is very scarce, and it is almost impossible to purchase same, especially air-dried lumber, on short notice. Besides, the same has advanced from 100 to 200 per cent. and over. Unless firms had a good supply, they would be up against it on account of shipping facilities, as it has taken from one to two months in some cases to receive shipments.

In reference to production, the same has not increased per article, but rather decreased, while sales, on account of the high price of labor and raw material, have increased more than a year ago. Strange to say, the tendency for furniture has been for a better quality than ever before, and considering the shortage of help, and that most of the factories are running with about 50 per cent. of the men they employed in 1913 and 1914, this accounts a great deal for the scarcity.

Even though furniture has increased in price, the demand has apparently been much greater than the increase, which must be accounted for as those who have been successful with war materials, and were receiving large salaries, have no doubt held back from purchasing during the period of the war, and are now anxious to get such articles as they have been looking for. There might be another reason, which cannot be denied, that furniture has been far below its value, on account of cheap labor and cheap material, and in the writer's opinion, will never go back to the old price, no matter what the conditions may be.

There have been all kinds of opportunities to manufacture certain lines for export; for instance, phonograph cases, etc., which, however, could not be entertained on account of the home market requiring the entire output.

As to the outlook for the future, the writer is of the opinion that there is only one thing which could effect same, and that is labor trouble, especially such as the individual manufacturer cannot control, viz., the present coal strike. Should the demand be fairly well supplied in the home market, there would be so many opportunities in foreign markets that in the writer's opinion there is no reason to fear any slackness.

PRODUCTION HAS BEEN DECREASED

By J. E. Campbell
Sec.-Treas., The Hepworth Mfg. Co., Limited, Hepworth

Manufacturing conditions during the year just closed have been bad. We have had difficulty in obtaining raw materials, while labor has been hard to get, and not nearly as efficient as in former years. Production has decreased owing to our plant operating nine hours instead of ten and because of scarcity of labor and materials. The value of output, however, has increased, caused by higher prices.

Market tendencies have been towards higher priced goods, but owing to scarcity all lines are actively in demand. We have had a number of requests to undertake export business, but have been unable to attempt it. Our feeling is that business will be very active in 1920, but we look for a decline in both demand and prices towards the end of the year, and whether mistaken or not, are making calculations for a decline in 1921.

An Ontario Manufacturer.—"Labor is high-priced, inefficient and scarce. Production is only about 60 per cent. of that of 1913. Commodities are still advancing and some are hard to obtain at any price. The highest quality of furniture is most saleable, and lower qualities are saleable provided prices are high. The buying public are madly extravagant. It is impossible for us to export because of home demand and short production. Our plants are running only 60 per cent. capacity, because of labor scarcity. Beginning 1920 we are already three months oversold and have had our travellers off the road for months. We expect a furniture famine all next year."

Leather and Leather Goods Industry

TANNERS are reporting improved conditions in their industry so far as manufacturing conditions are concerned. Labor has been more plentiful and the supply of raw materials has been easing somewhat. Production has increased slightly, stimulated by a demand which has grown to very large proportions. The domestic demand, especially for the finer grades of leather, has become very heavy and looks as if it would continue throughout 1920. On the other hand foreign business, which was very promising, has been curtailed by the adverse state of exchange. The outlook is regarded as rather speculative, with prices so uncertain and exchange in such an abnormal condition.



Leather Cutters at Work in a Boot and Shoe Factory

LEATHER AT THE HIGHEST PRICES

By Charles Robson

Robson Leather Co., Limited, Oshawa

We have plenty of labor in this district providing we could house same. Raw materials are in ample supply and production has been increased 25 per cent. over preceding year. All kinds of leather are in good demand at the highest prices ever recorded. While shipping space is rather limited we have so far managed to secure sufficient space for all shipments, although there has been some delay incurred.

At the present time we are exporting about 40 per cent. of our production. All signs point to a greatly increased foreign business. There will undoubtedly be a very heavy demand during the coming year from foreign countries for leather of nearly all kinds. The supply will be adequate. We have already completed extensive additions to our plant in order to take care of increased business.

Generally speaking, tanners have sufficient orders already booked to keep them busy for the next two or three months. At the present time foreign orders are rather slow in coming, owing to the low rate of exchange and the end of the fiscal year with many. We look for better and bigger business at the beginning of the new year.

BUSINESS HAS BEEN SPECULATIVE

By John Sinclair

Manager, The Barrie Tanning Co., Limited, Barrie

Labor has been very scarce and restless and the production per man lower than what might ordinarily be expected. There is to-day a better supply of unskilled labor, but no improvement in the skilled help situation. The raw material market has witnessed extreme fluctuations in prices, causing curtailment in manufacturing, as prices were too speculative for sound business. Our output is on a par with that of a year ago, but still much below normal.

The demand for best qualities has been extremely brisk, prices during the past summer being no object, the main thing being to get the goods. At present more conservatism is displayed. Export demand has been fair, but shipping and other conditions hampered it very much, and at present overseas demand is cut off owing to exchange conditions.

The outlook is not very encouraging for foreign business, although domestic trade will be good unless some outside calamity, which we cannot foresee, takes place. As already stated, business for the manufacturer has been extremely speculative, interfering very much with volume, as we feel that our best plan is to follow the safety-first policy. Factory capacity in Canada is ample to take care of the domestic requirements of leather and a large export business as well. In fact tanning capacity, if running full, would take care of the home market and export upwards of 50 per cent. of its output, but we doubt if any of the tanners will be running to capacity until conditions become nearer normal, as with the market for raw materials so unsettled, it is too great a risk to load up a plant at to-day's prices, other unsettled conditions being taken into consideration as well.

GENERAL REVIEW OF THE TANNING INDUSTRY

By an Ontario Tanner

The year just closed may fairly be said to have been one of improving conditions for the tanning industry. Labor, while by no means plentiful, has been more easily obtained than during the two years preceding, and while some demands for increased remuneration have been met, the tanning industry has not been forced to make the radical advances in wage schedules that have been the case in some other lines of industry.

Raw materials have been on the whole exceedingly scarce and very high in cost throughout the year. First, because of exceedingly depleted stocks so far as the North American continent is concerned, coincident with a general shortage in the world's supply of all classes of raw materials used in the industry; and second, this shortage so far as our country is concerned has been increased because of the difficulty of transportation, shortage of ships, etc. These latter conditions are easing up slightly during the closing months of the year making certain lines a little easier to obtain. Nevertheless, the world's situation at the moment is one of shortage, and it would appear as though it will take a very considerable time

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Conditions in the Lumbering Industry

IT is practically the unanimous experience of lumbermen that the cut of the past year was less than that of 1918 and considerably below the normal cut of pre-war days. Scarcity and inefficiency of the labor supply has been largely accountable for this result, there having been great difficulty in securing and holding men. On the other hand the demand for lumber has been strong and there has been no trouble experienced in selling all that could be produced. That the scarcity will continue for some time is obvious for there is not much likelihood of any considerable increase in production for some time to come. It is believed that mill capacity is ample and that it will rather be a case of bringing operations up to present capacity than of extending facilities. As in the case of the pulp and paper industry, it is gratifying to note that efforts are being directed towards the conservation of the country's forest wealth. A good deal of the work is being undertaken by governments, but several companies are going in for reforestation on their own account. Reports from various parts of the country follow.



Big Timber in the Forests of British Columbia

ALL KINDS OF LUMBER IN DEMAND

By Ward C. Hughson

Gilmour & Hughson Limited, Hull, P.Q.

Production for 1919 has been just about equal to 1918. Both years were 25 per cent. below pre-war days. Labor has been in short supply and inefficient. Transportation was somewhat better. Cost of operations was greatly in excess of that of 1918 on account of shorter hours and increased pay. The state of the market has been excellent, both for domestic and export. Every and all kinds of lumber have been in great demand. The outlook for 1920 looks exceedingly bright at the present time. We do not know of any enlargements in prospect and think there will not be any increase in out-turn under conditions as they have prevailed for the past year. We are not aware of any companies doing other than they have in the past to conserve timber resources.

LABOR SUPPLY A SERIOUS FACTOR

By Geo. W. Grier

G. A. Grier & Sons, Limited, Montreal

As a general rule, production has been falling steadily for the last three years or so, and it is probably anywhere from 20 to 40 per cent. less than in pre-war days. I should say that the 1919 cut on the whole would be considerably less than the 1918 production.

The industry has suffered from an insufficient supply of labor, and in many cases the labor available is inefficient as compared with previous years. It is said that many of those who went to the war and were formerly woodsmen, now prefer to remain in the cities rather than work in the bush. As to transportation, every business man knows what ocean shipping conditions were during the war, and since the signing of the armistice. Conditions of transportation by rail have varied a good deal. There have been several periods when the car supply for lumber shipments was anything but satisfactory, especially the supply of U.S. cars to carry lumber for the U.S. trade. Costs of operation have naturally greatly increased with advanced wages for labor and advanced prices of all the varied supplies required to carry on a lumbering operation.

The domestic market, the U.S. market, and the demand from the United Kingdom have all been strong, and today almost any class or grade of lumber finds ready sale in one of these three channels. There appears to be little doubt but that Canada will be able to sell at good figures all the lumber that can be produced during the coming year. With the present strong demand, manufacturers will naturally produce all they can, but the labor supply is such that it is doubtful if the output for 1920 can be very materially increased.

I cannot give much information about conservation of timber resources. In the Province of Quebec, the Provincial Government have certain regulations prohibiting the cutting of small timber under a certain specified diameter on the stump. Many of the larger timber limit holders, it is generally understood, are, of their own accord and in their own interests, leaving the smaller trees standing and taking only the larger-sized timber. I believe the Federal authorities at Ottawa have also established a bureau to investigate ways and means of preserving our timber supply.

COSTS HAVE ADVANCED ENORMOUSLY

By W. F. Beck

The C. Beck Mfg. Co., Limited, Penetanguishene

Production generally has been less during the past year than in pre-war days, and a little less than in 1918, we believe. There is a constant shrinkage of output in Ontario, owing to the depletion of the forests and so much of it getting so far back and unhandy to log. This is seen in the number of mills closing up all along the Bay.

As regards labor, there has never been, in the history of the industry, such a poor class as regards stick-to-it-iveness, and each year seems to be worse than the last. As this industry, before all others, is practically all labor, you can readily see that the costs have advanced enormously, much greater than the price of the saleable product, and there is no question that people generally were under a great misappre-

hension as to the value of the product in regard to the costs of manufacturing it. Even yet the selling price has not caught up to the increased cost. In reference to the labor, we do not think there is another industry that puts up with so much from inefficiency and from the constant change and turnover of its personnel. They call it in the north country a three-gang crew, one gang coming, one at work, and one gang going out. This is a fact this last year especially. We have had some camps brought from seventy-five men to twenty-five in one week. All these men have to be transported from Montreal, Ottawa and Toronto. They go in, turn around, and come out again. The loss in railway fares, time, etc., is something enormous.

The market this year for lumber, both domestic and export, has been good. All kinds have been saleable, and there looks like a distinct shortage, especially in Ontario, and we look for considerable scarcity next spring.

As to expansion in this industry, there certainly cannot be any in Ontario. Instead of this, there is a depreciation and shrinkage each year, and expansion will have to come from other sources. There is enough capacity, we believe, to nominally take care of twice as much business as there is.

In regard to the conservation of timber resources, this is such a large subject and there has been so much said on it, that an individual has not much to say on such a subject, but there are a few items that the Government are at fault on. They are allowing settlers going into wooded territories instead of keeping them in sections where the land is good and there is no possibility of fires, and another is the granting of mining rights in good timber areas. They say it is a fact that prospectors have burned up wooded areas, just to get at the minerals beneath. The Canadian Forestry Association has been doing good work in regard to this.

Statistics of the Canadian Lumber Industry for 1918

Compiled by
Dominion Bureau of Statistics

Number of operating plants	3,086
Capital invested	$180,017,178
Logging and timber plants	36,516,701
Mill equipment	53,791,373
Materials on hand, etc.	54,147,889
Cash and accounts	35,561,215
Employees on salaries	3,550
Salaries paid	$4,911,735
Employees on wages	56,816
Wages paid	$44,490,917
Material, fuel and miscellaneous expenses	68,498,520
Value of production	144,908,864
Sawn lumber	102,335,772
Shingles	8,124,968
Lath	1,560,136
Pulpwood	18,416,438
Miscellaneous products	14,481,550

MARKET CONDITIONS HAVE BEEN STRONG

By Ottawa Valley Lumberman

The situation is naturally more or less erratic at the present time in the lumber trade, similar to what it is in practically all other trades, and therefore it is difficult, if not more or less impossible, to forecast the future.

The product in the Ottawa Valley in 1919 will not run over 75 per cent. of what it was in 1918.

Labor has been fairly plentiful at the manufacturing points during the season, and while this has had somewhat of a better effect on its efficiency, the high wages, shorter hours, etc., has resulted in increased costs, with curtailed production, necessitating higher selling values. Transportation and weather conditions have been normal and no adverse results to the trade can fairly be attributed thereto.

Market conditions have been strong and must continue so with the short supply and continued increased cost of production. All lines of lumber have shared equally in the demand.

As to the future—Is there anyone who can with any degree of accuracy foretell what it will be with the many new conditions cropping up from day to day? Clearly not definitely. On the other hand, if prices and demand do not keep up, it is questionable if the manufacturers can afford to continue operating.

THE INDUSTRY IN NOVA SCOTIA

By Davison Lumber & Mfg. Co., Ltd., Bridgewater

Production for the year 1919 has not been maintained even to the 1918 level and is only about 25 per cent. to 30 per cent. of pre-war production. Supply of labor has been poor and the efficiency of what was available only about 50 per cent. Both supply and efficiency would appear to be on the mend now.

Weather last logging season was the worst we have experienced in Nova Scotia for a good many years, there being practically no snow and very little frost. The winter was a very open one and this entailed our leaving quite a quantity of felled timber in the woods.

Costs of operation still continue to mount upwards, due to increased wages, supplies costing as much or in some cases more than during war times, and the lesser efficiency per man per day.

The market has been good, both domestic and export. Our output of lumber is sold mainly to United States, South America, Cuba and Madeira, and the demand from all these points has been good at fair prices. Our flooring and box mill department has been working time and a half for several months and its entire production is sold locally.

The outlook to us is encouraging and we anticipate a quick return to pre-war basis of production. We believe for several years to come the market of the world will demand a large supply of lumber.

We fully anticipate to operate our plants to their full capacity next summer. We have an ample supply of labor in the woods for the present logging season, which we believe will give us an almost pre-war cut, and our organization has been held together ready to take advantage of the expected demand.

Being the largest operators in Nova Scotia, working together with the Canadian Forestry Association and our local legislators, we are using every endeavor and means at our command to conserve the forests here, particularly in regard to fire. Of reforestration nothing is being done in Nova Scotia at the present time.

LARGER LUMBER CUT FOR 1920

By W. Gerard Power

Manager, River Ouelle Pulp & Paper Co., St. Pacome, P.Q.

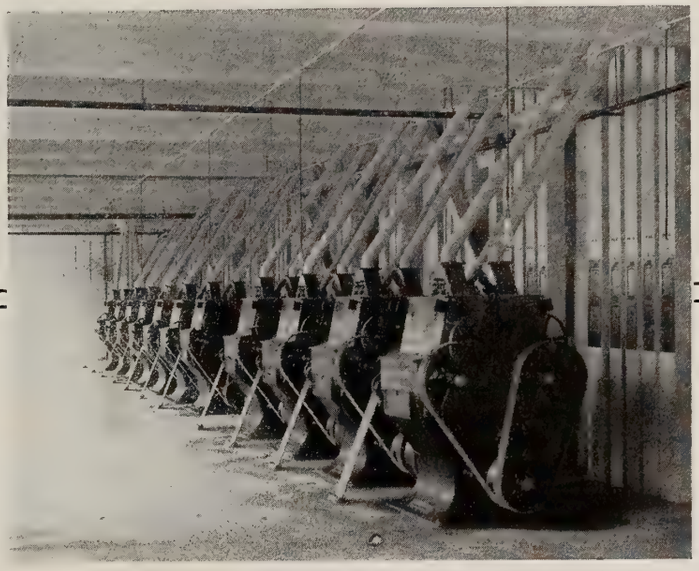
I do not consider that there will be very much difference between production in 1918 and in 1919. Production of 1919 is, as a general thing, as far as Eastern Canada is concerned, considerably less than in pre-war days. This is owing to the difficulty of securing necessary labor for the woods operations.

During the summer of 1919 men have been a little more plentiful for mill operations, and efficiency has been possibly somewhat better than in 1917 and 1918. The car supply for

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Milling and Food Products Industries

WITH flour mills under governmental control and regulation, both as regards the price at which wheat is bought and flour is sold, the Canadian milling industry has been in rather a colorless position during the past year. So far as actual operations are concerned mills ran pretty steadily throughout the year except for a period of two months, when they were shut down owing to lack of wheat. Both domestic and export business was good, with export demand particularly strong. Production was about on a par with that of the previous year and, if anything, was a little larger, due to the increased capacity of some mills. The outlook for the industry is rather difficult to estimate on account of the continuance of government control, but it is believed to be favorable. With its abundant supply of the best grades of milling wheat there is sound reason for believing in the permanence and prosperity of the industry.



A Modern Installation in a Big Canadian Flour Mill

Photo by courtesy Ogilvie Flour Mills Co., Limited

OUTLOOK FOR MILLING BUSINESS GOOD

By A. E. Labelle
Vice-president and Managing Director, St. Lawrence Flour Mills Co., Limited

Our industry is rather in a peculiar position at the present time owing to practically the whole of it being controlled by the Canadian Wheat Board. The price and delivery of wheat is regulated by them. The price of flour and feeds is fixed by them, and they practically handle the whole of the output that goes to European countries. In consequence, things are not normal, but on the whole I think it was the best that could be done under present circumstances, and has resulted in fixing prices on a fair basis, allowing a reasonable profit to millers, and by controlling the price of wheat, preventing any increase in the cost of bread.

The milling business is one that is particularly adapted to Canada. In fact, it is one of the really fundamental—if I may use such a word—industries in Canada, as we have a large supply of wheat of the very highest quality. There is no question that Canadian wheat has the reputation, the world over, of being the finest wheat grown, and like every other natural production of Canada, it is in the interest of the country that everything possible should be manufactured here; in the first place, to supply work for our labor, and in the second place, one which is very important in milling, the greater production of mill feed for the feeding of our cattle. If Canada could export all that she can sell outside in flour instead of wheat, it would mean a larger quantity of mill feed, which would be available for the supply of another great Canadian industry—dairy and cattle raising.

There has been very little trouble in the milling business with the supply and efficiency of labor. I do not think any mill has been much troubled that way, and the labor has been, as usual, fairly satisfactory. As I have stated above, the quality of grain is very good and the supply fairly satisfactory, although mills have been closed down for nearly two months last year, due to the exportation of a large quantity of wheat. They have been very busy for the rest of the season. Both domestic and export business has been very good. The export demand was, of course, enormous, and is likely to remain very large for some time to come.

This industry has really not been affected by Government regulations or restrictions. Mills might have made a good deal more profit if they had not been controlled, but this I do not think would have been in the interest of the whole country. The flour being all bought for export to Europe by the Canadian Wheat Board, the transportation problem has been a very easy one, this article being one of the first that was given preference in order to supply the immediate wants of the European countries. As far as local transportation between different points in Canada is concerned, it has been practically the same as usual. During winter months, the usual blockade of freight has taken place from time to time, but I think on the whole that the railways, during the last winter, have done pretty well under adverse circumstances.

I think that the production of 1919 is about the same as 1918, with the exception that a few mills have added somewhat to their milling capacity; but on the whole, since the beginning of the war, mills in Canada have been running more than they have at any other time before.

FEATURE OF FLOUR MARKET HAS BEEN CONTROL

By D. A. Campbell
Maple Leaf Milling Co., Limited, Toronto

We have had no difficulty in securing all the labor we require, but the efficiency of the average workman is certainly much below pre-war standard. Grain this year is of a fair quality. There is considerable wheat that contains an excess amount of moisture due to wet harvesting conditions in the West. General operations of the company's plant have been satisfactory.

The outstanding feature of the market for flour this year has been the control of the Canadian Wheat Board, whose

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The Mining Industry in Canada



Milling Operations at Britannia Beach, B.C.

By WYATT MALCOLM
Geological Survey, Ottawa

IMMEDIATELY after the signing of the armistice a year ago, there was a great feeling of uncertainty as to the future of Canadian industries, and as to the time that would be required for the restoration of normal conditions and the vicissitudes through which the war-disturbed countries must pass in the interval.

Mining men felt the uncertainty and realized that the success of the mineral industry depended in a large measure on the success of other basic industries. They were interested in knowing whether capital would be available for mining enterprise and for those numerous industries dependent for their raw material on the products of the mine, whether labor of adequate quantity and quality would be obtainable, and whether the cost of supplies and the wages demanded would permit of profitable mining.

Labor Conditions More Satisfactory

The year 1919 has removed some of the uncertainties, but has not effected such progress towards normal and stable industrial conditions as had been anticipated. The feeling of anxiety about the labor situation and about social upheavals and revolutionary tendencies has been considerably relieved. An attempt to establish in Canada a communist order with a dictatorship by mass action was happily frustrated, although conditions in the western provinces were much disturbed and considerable uneasiness was manifest in the cities of the east. During the spring and early summer there were strikes in many industries and much time was lost. The mining industry itself was affected by strikes, and work ceased for a time in many of the coal mines of western Canada, in one of the big copper mines of British Columbia, in the gold mines of Kirkland Lake district, and the silver mines of Cobalt. In nearly all cases, however, an understanding has been reached between employers and employees, and the labor conditions of Canada have now for some time been more satisfactory than those of almost any other country directly affected by the recent war.

The mining industries as well as other industries have, however, suffered from the inefficiency of labor. Too frequently an increase in wages has been accompanied by a decrease in the efficiency of the workmen. High wages have also tended to render labor unstable and to produce more or less idleness. The personnel of the mining staff changes too frequently. The workmen feel their strength as they never felt it before, and as a result their service is not so satisfactory.

Unfortunately, mining conditions tend in some cases to render labor troublesome and unsatisfactory. For instance, so many coal mines have been opened in the Province of Alberta, that to work them to capacity the year round, would result in a production much greater than the market demands. The prevention of over-production, therefore, necessitates the working of the mines for only a part of the year. Under such conditions there must be more or less discontent. It was expected that the close of the war would be followed by a period of reconstruction in the devastated countries, by construction of all kinds that had been postponed by the Allied nations for the duration of the war, by the replacement of obsolete machinery and manufacturing plants and by the repair of the long wear and tear. Had these expectations been realized there would have been an insistent demand for the base metals and common minerals, and the mines and quarries of Canada would have made a generous contribution towards the filling of this demand. Reconstruction has, however, not been as rapid as had been expected. The European countries were exhausted; the fall in the value of European monies has militated against the purchase of materials from America; there have been numberless strikes and social upheavals amounting in some cases almost to revolutions; and lavish expenditure on luxuries has diverted attention and capital from the more desirable construction work.

The hoped-for lowering of the cost of living has not come about and in general the prices of commodities are higher now than at the close of the war. Money has been spent lavishly but it has been spent in luxuries. A great deal of money had accumulated in the hands of men who had not been accustomed to its use and whose best idea of the use of wealth was the satisfaction of the desires for personal pleasure. They had not learnt the wisdom or art of careful and judicious investment in enterprises that result in the establishment and growth of constructive industries that are productive of national wealth, industries that are permanent and contribute to the necessities and comfort of mankind. There has, therefore, not been as great a demand for the base metals and common minerals as might have been expected.

Strong Market for Precious Metals

A survey of the mining industry for the year 1919 shows that the mining and quarrying of many of the minerals were adversely affected by unstable labor conditions and by an uncertain market. On the other hand there was a strong market for the precious metals, gold and silver, and, except when certain mining districts were troubled with strikes and labor shortage, the mining of these metals was prosecuted with vigor. The war created conditions that led to the active mining of certain minerals that had been previously recovered on only a small scale. It is gratifying that there are prospects that at least one of these will continue to command a good market.

Copper is one of the base metals that enter into constructive work of a fairly permanent character. The interests of

copper mining are, therefore, intimately related to the restoration of stable, normal conditions.

The close of the war found the Allied Governments with large stocks of copper on hand. The uncertainty about a future market led Canadian producers to curtail their output. The reduction in the demand for nickel resulted in a great decrease in the production of copper associated with the nickel in the Sudbury ores. Mines and mills in British Columbia were run for a time at only a fraction of their capacity. With the increase in the price of copper later in the year there came a resumption of more intense operations; for instance, the Britannia mine, one of the largest producers of British Columbia, is said to be working at capacity. Labor trouble was encountered for a time at Anyox where one of the very large bodies of ore is being mined, and although work was resumed there is difficulty in obtaining satisfactory labor. The large, low grade copper deposit that has been developed at Copper Mountain is ready for mining, and the mill, having a capacity of 2,000 tons of ore per day, is complete, but neither the necessary railway line nor the power transmission line is finished, owing it is said to the impossibility of procuring laborers.

The copper market is not satisfactory. Copper mining, however, continues and a large surplus of the metal is accumulating. The expected demand has not materialized, the price has dropped, and the future is uncertain.

Production of Coal Decreased

There was a very considerable decrease in the production of coal throughout the country during the first nine months of the year. This was due in part to a contraction in the market, and in part to the greater import of American coal into Manitoba. This importation affected the mining in Alberta adversely, although production in this province was also greatly hampered by strikes. The results of the carbonizing and briquetting of lignite by the Government plant to be established in Saskatchewan will be watched with interest. It is said that briquettes will be produced in 1920. It is to be hoped that the shipments of coal from the Sydney field up the St. Lawrence this year is the beginning of the recapturing of the Canadian market and that this branch of the Canadian coal trade will undergo great expansion.

With the close of the war and the consequent break in the requirements for immense quantities of nickel for war purposes came a stringent reduction in the operations of the nickel mines at Sudbury. There was not the demand for nickel for the manufacture of high grades of steel that there would have been had normal industrial conditions been established throughout the world and more permanent constructive work been undertaken. Production was, therefore, greatly curtailed in the beginning of the year, but is recovering its pre-war status. The rise in the price of silver, and the possibility of silver coinage being driven out of circulation on account of the silver content of the coins exceeding their face value has revived the suggestion of the use of nickel in coinage. Nickel is used to a certain extent for this purpose now, and it seems probable that financial considerations may make an extension of this use in the near future advisable. Sudbury is the main nickel-producing district of the world; there are large reserves of ore and the producers would no doubt welcome the opening of any new outlet for the metal.

It was stated in the January, 1919, number of INDUSTRIAL CANADA that an increase in gold production might be expected. This prediction has been fulfilled, at least, in so far as it applies to mines that are worked for their gold alone in contradistinction to those in which gold is associated with copper ores. In Ontario, where the gold mines are of the former class, the production for the first nine months of 1919, was 366,288 ounces as compared with 336,394 ounces for the corresponding period of the preceding year. And this in spite of the strikes in the Kirkland Lake district, which, unfortunately, led to the closing of the mines of that district in the spring and permitted only recently of resuming operations.

The main production was from the Porcupine district where large reserves of ore for future production have been blocked out. The Hollinger mine alone will have paid by the end of the year a dividend for 1919 of $1,722,000. Work in this district is hampered at present by a scarcity of miners.

Abandoned Mines Re-opened

The high prices of silver, which is worth nearly three times what it was a few years ago, led to a careful investigation of the ore-producing possibilities of various silver properties and prospects. Mines abandoned years ago were re-examined, and claims that in normal times received scant attention became objects of great interest. Valuable deposits were developed in north-western British Columbia and shipments of high-grade ore were made. Among the properties that attracted attention are the Premier and the Dolly Varden. The Silver Standard of the Hazelton district was operated, and discoveries were made of deposits of high-grade silver lead ores in the Mayo district, Yukon Territory.

The increase in the value of silver is of vital interest to the Cobalt mining camp. A great deal of low-grade ore was handled and dumps that had at one time been regarded as of little or no value grew into importance. The production of Cobalt is on the decline, but the high prices of the product has had the effect of lengthening the life of the camp by admitting of the economic handling of ore of much lower grade than had heretofore been possible. The production of silver in Ontario for the first nine months of 1919, which included a strike period of over six weeks, was 7,475,396 ounces, as compared with 13,145,596 ounces for the corresponding part of 1918.

The year witnessed a decrease in the sales of metallic cobalt. This was due probably to a decrease in the demand for the alloy stellite, which has been used mainly for making high-speed cutting tools. It is expected that a market will be developed for the use of this alloy in the manufacture of surgical and dental instruments and cutlery of a high grade.

The mining of a number of minerals was given an impetus by certain conditions created by the war, and the effects of the restoration of peace were watched with much interest. Mention may be made of such minerals as molybdenite, chromite, pyrite and magnesite.

Molybdenum Mining Ceases

The mining and milling of molybdenum ores in Canada became established during the war on account of the acute demand for molybdenum required for the manufacture of a special kind of steel. When the demand was satisfied prices dropped below a figure at which the material could be profitably produced and the industry fell into abeyance. Hopes are entertained that uses will be found for molybdenum steel that will lead to a revival of the industry.

As a result of special efforts a great increase was made in the production of chromite in 1918. The latter part of 1918 and the year 1919 saw a slackening in the demand and some of the mines closed down. Production on a reduced scale was, however, continued and the yield for 1919 will be about 8,400 tons valued at $350,000. The chronic oxide content will be approximately half of that of the output for 1918. This may be considered fairly satisfactory.

Owing to the great expansion of the explosives and other chemical industries in North America during the war, a great

(*Continued on page* 270)

Conditions in the Packing House Industry

NINETEEN-NINETEEN was a year of marked readjustment in the packing house industry. The change from war to peace conditions was accompanied by variations both in markets and in prices. Foreign demand for beef fell off and export demand is now largely restricted to pork products. At home, however, demand for meat of all kinds has increased greatly. From the production standpoint output was about the same as the previous year. The packers look for a continuance of good business both at home and abroad owing to the reduced herds of cattle in Europe, which it will take several years to replace.

THE INDUSTRY DURING THE FIRST YEAR OF PEACE

By E. C. Fox

President and General Manager, The William Davies Co., Limited.

At the time of the armistice, Canadian packers were selling for export both beef and bacon products through the British Ministry of Food. The cessation of hostilities, which rendered safe ocean transportation, diminished the necessity of having ample reserve supplies of meat products in Great Britain. The result was a permanent termination in the purchase of Canadian frozen beef and a temporary cessation with respect to bacon. The exports of frozen Canadian carcass beef in 1919, other than those that had accumulated in storage at the time of the armistice, have been insignificant, and indicate that the export of carcass beef carried on during the war was only of a temporary character. The lack of pressure, of course, for export has lowered the price of beef in Canada very materially, and relative to other commodities beef has been selling at a low price to consumers—consequently there has been a very excellent domestic demand for fresh beef.

The export bacon situation recovered itself by March, and de-control took place in England on 1st April, and lasted until July. During that time the market, already at a high level, advanced beyond all expectation. This was owing chiefly to so many new packing houses in the United States getting into the export bacon market through the British Ministry of Food, and finding it profitable. They seemed to think they could export anything to England and sell it. Instantly on de-control, a tremendous competition set up all over America to buy hogs, and the cost kept advancing just as dramatically as the selling price in England.

The advance of price in England had an abrupt termination in August, when it was discovered that there were stocks on hand to last for several months, and at the same time the British Ministry of Food took over control again. It was at this point that the Canadian packer demonstrated his standing on the English market, and gave evidence of the type of service that he had rendered in maintaining the standard quality of his bacon during the previous four years.

At the time de-control took place, Canadian bacon was in the greatest demand in England that it had ever been, owing to the fact that under control Canadian bacon was distributed throughout Great Britain to many buyers who had never before handled it, and it was the only bacon landing in Great Britain during the war that maintained its old standard. The advantage taken by the American packers of the urgent requirements of Great Britain is notorious. Consequently, when the break came in August, with the discovery of enormous supplies of bacon, it was found that there was no accumulation of Canadian bacon, and that this product has gone steadily into consumption; and the result was that Canadian bacon was disposed of at a loss greatly less than that sustained by American packers.

The Canadan live hog situation is not bright. The supplies for 1920 will not be adequate to the demand. I recently heard that a Vancouver packer had bought live hogs in Winnipeg for shipment to Vancouver. This is probably the first time that a shipment such as this has been made in the last ten years, and indicates a serious shortage of hogs in Western Canada. Indeed I would think that for 1920 Western Canada will have to import bacon from the United States or Ontario.

The hog situation in Ontario this year about held its own with last year, but I look for a decreased run of hogs for 1920 owing to the shortage in this province of grains fit for live-stock.

The price of grains has ruled high relatively to the price of hogs. Most farmers in Canada breed hogs from the point of view of immediate profit, rather than an average profit over a period of years. The discrepancy between the price of grains and live hogs has also discouraged production this fall. A year ago the Dominion Department of Agriculture set out on a big campaign of urging the production of live-stock. At a very critical time like this, when such a campaign is needed more than ever, the Department remains inactive, and any advantage that came from the campaign of a year ago is likely to be lost.

PRODUCTION NOT ADEQUATE TO THE DEMAND

By Swift Canadian Co., Limited

The supply of labor during the year generally has been ample for our requirements and, with the return of quite a number of former experienced employees, efficiency has been improved as compared with last year.

As our supplies consist of live-stock and produce grown on the farms, we depend on live-stock production for our raw materials. The supply has been somewhat greater than last year, but in the case of cattle the quality has not been as good, there having been marketed quite a number of unfinished cattle, possibly due to high cost of feed.

Operating costs continue on a very high level, all supplies being at a very high figure.

Production has been somewhat increased in proportion with the increase in live-stock and produce. Present output is about the same as last year.

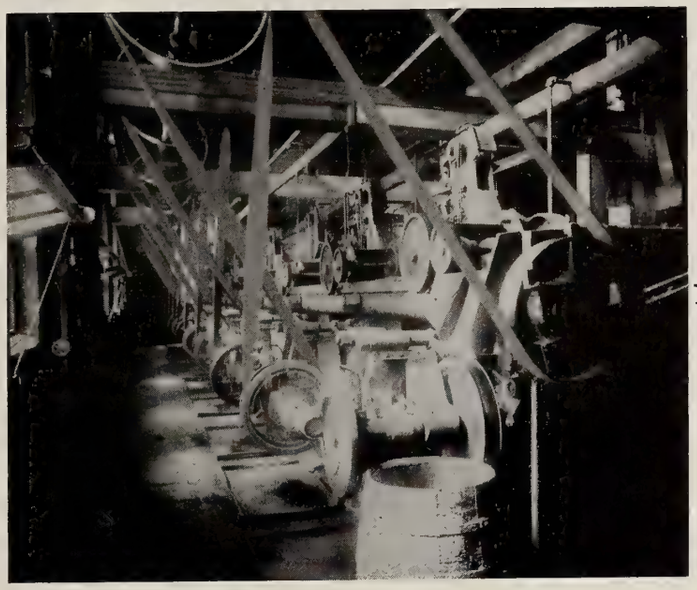
Board of Commerce rulings affecting our business have had a tendency to restrict the free movement of certain products and have forced us to discontinue the sale of other products.

Domestic demand for all products has been greater than the previous year. Export demand has been restricted to chiefly pork products and produce, as when the armistice was signed other markets such as Argentine and Australia were opened to the United Kingdom on beef, which has naturally

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Review of Paint and Varnish Industry

PAINT and varnish manufacturers have experienced a very busy year. Capacity has been largely increased and output enlarged. At the same time costs of operation have advanced in such a way that it is probable that net profits have not been as great as with the smaller turnover. The demand for paint, and particularly for paint of the better grades, has been very large. As a material employed largely by manufacturers of other goods, its use has grown with the increased activities of general industry, and at the same time the demand for paint for domestic purposes has been very active. Export business has been brisk, and the fact that expansion in this direction offers such good opportunities has been the basis for a good deal of the enlargement of capacity that has been taking place. A continuance of favorable conditions in 1920 is anticipated.



Scene in the Linseed Oil Department of a Canadian Paint Factory

Photo by courtesy Sherwin-Williams Co., Limited

BEST QUALITY GOODS IN DEMAND

By F. Moore

General Manager, Benjamin Moore & Co., Ltd., Toronto.

Our experience in the matter of labor supply, raw materials, and general operations, in the past year, has been, generally speaking, normal. That is we have not experienced any serious trouble in getting raw material, or getting labor. Consequently, we are not hampered in our operations.

Production increased considerably over a year ago, but it cost us considerably more to produce the same quantity as the year before, owing to the increase in wages. Our output, as compared with a year ago, has a very handsome increase.

The kind of goods in demand are mostly of the best quality. Profits were fairly good, but we are below the average, owing to the enormous increase in selling expenses, as well as manufacturing expenses.

The outlook is extremely good, as far as we can see. Apparently, the public have got accustomed to high prices, and the trade is buying in larger quantities, and a more optimistic spirit prevails. It is our opinion that we will have difficulty to take care of the business we will be able to get. To this end, we are putting up a new addition to our plant.

OBLIGED TO INCREASE CAPACITY

By J. H. Waterbury

President Manager, Pratt & Lambert, Inc., Bridgeburg, Ont.

The year 1919 has been the largest year in our experience in point of sales. We have had no labor trouble, though we have had more or less difficulty in securing competent help from time to time. Also, materials in our line were exceedingly high in cost, and some of them, notably varnish gums, exceedingly scarce.

Our production has increased in proportion to our sales during the year, but having reached its maximum point, we have been obliged to increase our plant and equipment, which considerably more than doubles our former maximum capacity and puts us in position the first of next year to produce from two to three times the quantity as in the past.

The tendency seems to tend to the sale of the higher quality of goods of our manufacture, and while our customers are apparently not stocking up to any great extent, they are buying liberally for their current needs. Prices in our line have increased during the past year about 15 per cent., and judging from the conditions of the future, market prices on most of the materials entering into the manufacture of varnish, there is but little possibility of any decrease in price for at least the next six months or a year.

Our export business is developing rapidly, we having but recently started soliciting this class of business, and the results so far have greatly encouraged us in making the extensive additions to our plant mentioned above.

We anticipate the next year of having a large increase in our business, and our manufacturing facilities are such as to be adequate to keep pace with even a very much larger increase than we anticipate.

DEMAND TO TAX MANUFACTURING FACILITIES

By Arthur D. Brown

Manager, A. Ramsay & Son Co., Montreal

In our experience, we have found experienced labor extremely hard to secure, and wages have been much higher. Raw materials in most cases have been very scarce and difficult to get, and there have been many complications in connection with general operation.

Under the trying conditions which we have just experienced during the war and since the armistice, we are very pleased to report that there has been a steady increase in business since 1912, each year being in excess of the previous one.

Even at the higher prices goods have had to be sold at, the demand has been for the better quality of goods, and it has been a question of getting the materials to produce goods of the right quality to satisfy the trade in general.

Re export business, we might state that ever since the armistice, export had practically ceased, owing to the fact

(*Continued on page* 276)

Pianos, Organs and Musical Instruments

INCREASED production is reported by most manufacturers and still larger production in 1920 is predicted. Some shortage of labor is noted but the greatest difficulty appears to have been in connection with materials, which have been hard to obtain. The market for all kinds of musical instruments has been strong and higher quality goods have been in request. Noteworthy has been the volume of export business offering, particularly in pianos. Manufacturers have done the best they could to meet this demand but are behind on orders. The outlook generally is satisfactory with good business, both at home and abroad, in prospect.

NOW SHIPPING TO MANY COUNTRIES

By Owain Martin

President, The Martin-Orme Piano Co., Limited, Ottawa

Manufacturing conditions were more difficult at the beginning of the year probably than ever before, mainly through the demands of labor. Raw materials have been at times almost impossible to secure, especially in semi-manufactured lines. These conditions have gradually improved; labor seems more settled, and easier to get, and our men not shy in regard to production. At the present moment we are again finding it hard to get stock, particularly in metal goods at all promptly.

Our production will average 50 per cent. increase over last year.

Export business has recently been taken up by us, and we are shipping now to Great Britain, France, Belgium, New Zealand and West Indies.

We have recently made considerable enlargement of our factory to accommodate the manufacture of Grand pianos. We see nothing on which to base forecasts of future trade conditions. Much will depend upon the extent of the disturbance of existing conditions following the notable accession of the farmers to power.

OUTPUT LIMITED BY LABOR SUPPLY

By W. N. Manning

The Sherlock-Manning Piano & Organ Co., London

To go back as far as 1914, we were able to keep our full staff employed through 1914 and 1915, never laid a man off, but some went to the war. Then in 1916 one-third of the remaining men joined up, and from that date to this we have been short on labor. In 1917 we introduced girls into the factory, and we still have several of the first girls who started. They have made good and are now considered a fixture in our factory. About one-half the men who went to the war have returned to us. Two were killed; others, who returned, do not appear to want to come back into factory work. Output is now limited to the labor we can get and, as it takes fully two years to educate a man in the particular piano branches, we cannot take advantage of the ordinary help that is offered.

We have had no labor troubles. We have advanced wages in line with increased cost of living and have kept our help well satisfied. They are, we believe, doing their best to give us an output. As a Christmas present we are taking out a group insurance policy and giving each man a policy of from $500 to $1,000, according to time in our employ.

We have had more trouble in the past six months getting raw material than at any time since the war started, and in order to be assured of having our requirements, we have to carry heavy stocks.

Output has increased 25 per cent. over a year ago, and this year's output, we believe, will be between 20 per cent. and 25 per cent. more than last years, in fact we are now about normal.

The tendency of the customer is to buy the high-grade piano. The Canadian public is becoming more artistic in its taste, and is demandng qualty in both tone and design. Marketing conditions were never better. Terms have been shortened, and many dealers who previously asked for long terms are taking the discount and paying cash.

We have always done a little export business, and it has gradually increased. We now have orders for a considerable number of instruments which we are unable to ship owing t(the home demand. We have taken care of our export orders fairly well and expect to have the present ones all cleaned up in January. Previous to the war, organs only were exported, but during the war they had to buy pianos. Before, our foreign customers would not pay the price for Canadian pianos, but they now realize the quality warrants the price and we believe they will continue buying even though a lower-price piano may be offered from Europe. The outlook never seemed better. We see no sign of any let-up in the demand, and were we assured of labor we would immediately enlarge our plant.

SITUATION BETTER THAN YEAR AGO

By Henry H. Mason

Mason & Risch Limited, Toronto

There has been considerable difficulty through the year in getting adequate supplies of the raw materials that are required, but the chief problem has been and still is, to get a sufficient number of first-class mechanics to permit of a really satisfactory output. The situation is considerably better than a year ago, as a number of the men who left piano factories to work in industries engaged in the production of munitions and aeroplanes, have returned to their old positions. It has, however, not been possible yet to get the factory output up to a number of the pre-war years.

The demand to-day is for the higher priced styles. In fact it is really most encouraging that this should be the case, in view of prices necessarily being considerably higher than those that formerly prevailed. As to export business—the demand for Canadian instruments from abroad is very active, and is evinced not only by letters that are constantly received from many countries, but by personal calls from those representing companies in Australia, New Zealand and other distant sections. It is unfortunate that industrial conditions are such that only a small part of this demand can be given attention.

As to the future outlook this certainly can be regarded as good. In addition to the active demand both from the home and outside market, collections were never better. If the improvement in manufacturing conditions that has taken place during the present year continues, it should be possible next year through increased output to do a considerably in-

creased volume of business. As to factory enlargements this is not a problem that concerns us for the immediate future, as our first care is to build up a staff that will give us the benefit of the capacity of the present plant.

LOSING EXPORT BUSINESS

By C. A. Bender
Heintzman & Company, Limited, Toronto

Conditions of manufacturing have been very difficult. It has been hard to get men and keep them, on account of labor conditions and constant increase in prices. Raw materials show very high increase in cost, but there has been an increase in production over 1918 of 25 per cent. Market conditions are good. For the last year export business has been good, but we have been having orders cancelled on us lately owing to constant increasing cost of manufacturing plus traffic conditions.

GENERAL REVIEW OF PIANO INDUSTRY

By H. P. Bull
Vice-President, Williams Piano Co., Limited, Oshawa

We have had no trouble of any kind through discontent in our labor. We started operating a forty-nine hour week about the beginning of April of the past year on the old standard of sixty-hour a week pay for those who are not working on piece work, but retained the same scale on piece work labor. We had a general understanding with the foremen of our different departments in conference, that in granting the forty-nine hour week they were to hold the output up and, if possible, increase the output with such facilities as we would give them in new machinery.

We necessarily have to employ at least 85 per cent. skilled labor, and would have difficulty in getting more skilled labor if we had required it in any excess.

It may be of interest right here to state that before the year 1914 we were employing 225 men for the manufacture of about eight pianos a day, which seemed to be all that we could produce. The war took away a number of men from us and we have been operating with 200 men and have succeeded in practically doubling our output by the men becoming much more efficient—the result of which has increased the earning power of the men to almost double what it was before 1914.

The production during the past year has increased about 10 per cent. over the previous year, the increase being controlled to a great extent by our inability to get a greater quantity of supplies.

The requirement for instruments has a tendency toward player pianos and, in addition, our higher-priced pianos. The demand throughout the entire year has been perhaps 25 per cent. greater than we have taken care of. The demand could have been increased much beyond 25 per cent. had we put forth efforts to obtain a larger amount of business, but we have curtailed actual solicitation of business to almost a minimum. Our wholesale prices have increased about 30 per cent. in the last twelve months.

In the export business we have been making a most careful effort to build up a very permanent trade connection, and in doing this we have enlisted the services of three export companies, giving them different territorial rights throughout the British Empire, Europe, South America, China, Japan and Asia.

We have been doing some development work in regard to sending sample orders to quite a number of foreign dealers in addition to which we have some substantial connections to whom we are making regular shipments.

We had some difficulty in previous years in the export business by endeavoring to build a piano in size, design and method of construction at low prices, but the results of that effort did not prove satisfactory as we could not make pianos cheaply in this country and have any merit to the quality that would be a credit to the Canadian manufacturer and would have any tendency to build up a permanent demand and respect for the product. Therefore, we discontinued special designs of cheap pianos and decided to advise the export trade that they would have to take our standard quality of goods and pay the standard Canadian prices. We are pleased to state that this method has proven most satisfactory, and we anticipate a splendid foreign trade connection and are already considering ways and means of taking care of the demand, which at the present time is all that we are able to supply and at the same time give service to our Canadian dealers.

The outlook for increased piano business we figure on a ratio of percentage per population, and we have found that this percentage has increased by the enforcement of prohibition, which has created more possible purchasers.

We have every reason to believe that the demand for musical instruments will continue, and although there may be some occasional reversals in the demand, the requirements of music in the home—particularly a piano—is becoming a more established necessity every day for the education and welfare of the family rather than as a luxury, which our Government usually considers a piano to be every time there is a little flurry in the market as regards the national supplies. We are making plans for factory extensions and may erect 25,000 feet more of factory this year.

FIFTY PER CENT. LARGER OUTPUT

By J. W. Alexander
The Dominion Organ & Piano Co., Limited, Bowmanville.

Our experience is that manufacturing conditions have been very unsatisfactory as regards labor and raw materials. There is no scarcity of unskilled labor. What we have suffered from, and we presume the other manufacturers as well, is the scarcity of skilled labor, such as cabinet makers, etc. Raw material, such as lumber, steel wire, etc., has been very hard to obtain, and at greatly increased prices. Lumber has more than doubled in price within the twelve months. Notwithstanding the above drawbacks, production has been well maintained, and increased in some cases. Take ourselves for instance, our output will be at least 50 per cent. ahead of what it was a year before, when we complete the twelve months at the end of December.

The demand has been for high quality instruments. The price seems to be no obstacle. All standard pianos and organs have been in great demand throughout the year.

Export business has been offering very freely, and we have now large orders on hand for England, South Africa and Australia, but the great drawback is the excessive ocean freight rates, which are ten times what they were in pre-war days. In our opinion, there is no limit to the export business that could be done if a reasonable rate of freight was demanded.

The outlook is encouraging and we see no reason why the demand should not keep up. The difficulty will be to supply the demand, in our opinion, on account of the peculiar conditions of labor. We have no plans for factory enlargement, as it would not be wise when skilled labor cannot be got to adequately man our present factory.

BIG INCREASE IN GRAMOPHONE OUTPUT

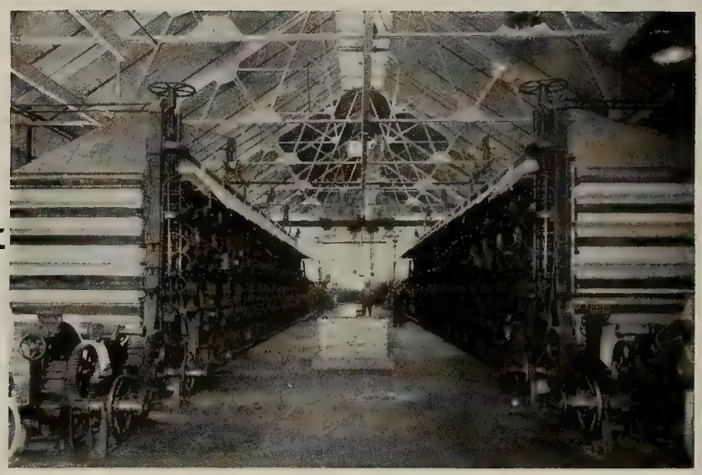
By C. H. Weicker
Brunswick-Balke-Collender Co. of Canada, Limited, Toronto

During the year just closed we have had a lot of difficulty getting the experienced labor we required, and it was necessary for us to educate a large number of men. Raw materials have been at times difficult to secure and this has

(*Continued on page* 276)

The Canadian Pulp and Paper Industry

REPORTING on conditions in the Canadian pulp and paper industry, manufacturers are practically unanimous in their belief that this great industry has now become established on a stable and profitable basis. Expansion is general with capacity almost everywhere on the increase. The demand for pulp, paper and paper products has been growing steadily throughout the year and has now reached proportions that are beyond the capabilities of present capacity to supply. Particularly is this true of newsprint, which is in extraordinary demand at advancing prices in both the United States and Canada.



Two of the Big Newsprint Machines of the Laurentide Co.

Manufacturing conditions during 1919 have been fairly satisfactory. The labor situation has apparently become better stabilized, though here and there some manufacturer reports a state of uneasiness and uncertainty. Raw materials have been scarce and high in price, with some complaints as to inferior quality, due to the rush of production. Transportation problems have not been a serious factor except in one or two localities. As for climatic conditions these have been on the whole quite favorable.

Capacity is Being Enlarged

Production has been on the increase with promise of considerably larger production in 1920 and 1921. There is scarcely a mill which does not report increased capacity either in effect during the past year or in prospect for this year, the increase extending all the way from improvements to and extensions of present plants to the construction of new mills. The enlargement is in keeping with the demand which on all hands is reported to be enormous. Mills are sold months ahead, while in the newsprint field famine conditions are freely predicted unless consumption is curtailed.

The export field, apart from the heavy shipments of newsprint to the United States, has not been a very conspicuous factor on account of the difficulty experienced in meeting domestic demands. There would be no difficulty whatever in securing export orders, were manufacturers in a position to make shipments, but this has not been the case and the business has been confined to a few mills. It is rather unfortunate that more paper is not available for overseas shipment as now is the time to gain a foothold in these markets.

Gratifying progress is reported in the matter of reforestation and conservation of the timber resources of the country. This is a most important matter, for on the continued supply of wood must depend the future of this great and growing industry. Quite a number of the larger companies have now established forestry departments and are going in for a vigorous policy of protection, selection and planting.

In the following reports received from several Canadian manufacturers, first-hand information on conditions in the industry will be found. These, taken collectively, will give a very good idea of the present situation and outlook in this important field.

OUTLOOK REGARDED AS GOOD

By G. Chahoon, Jr.
President, Laurentide Company, Limited

Labor conditions in this section of the country have differed but little from those of other portions of the Dominion. We have had a shortage of labor, but no apparent unrest. The supply of raw materials for manufacturing purposes has been about normal; some manufacturers, ourselves included, have been rather short of wood this year, owing to scarcity of men for drives last spring. We have had no difficulty with inland transportation. We have, however, experienced the same difficulty as all other export shippers in obtaining space for the overseas market.

Our production is about normal. Owing to the scarcity of paper and the demand for same, the mills have been pushed to their utmost capacity and show an increased production for the year of a few per cent. We have made no enlargement in the plant, but have plans under way to put in two additional paper machines, which should be ready for operation by January the 1st, 1921.

There has been a very strong demand for pulps and papers of all kinds, due very largely to the enormous amount of advertising being carried on by the metropolitan papers. The prices of newsprint paper are controlled by the Government as they also are in the United States. Many publishers in the United States have deemed it advisable to waive their rights under Government regulations and pay fair market prices. There has been a strong demand for newsprint paper from all of the foreign markets. The amount that our company has been able to ship has been governed very largely on our ability to get steamship space.

The outlook for the coming year is good both as regards production and distribution. There is a substantial shortage at the present time, due to the numerous demands made by the larger publishers, but there are machines in the process of construction which should make up this shortage within

the next twelve months, that is if there would be no business depression that would curtail the consumption. I consider the industry in rather a precarious position, due to unprecedented prosperity. I fear that this prosperity may lead to more speculative plants, which in normal times will not be able to operate successfully.

The Laurentide Company has been developing nurseries and planting trees for the past six or seven years. Our nursery capacity this past year was about two million young trees. These were planted on lands near the mill. I sincerely hope that the Quebec Government will continue its very wise plans of conservation and in the near future develop some co-operative plan of reforestation whereby it will be just and fair for the Government to require that a new tree shall be planted for every tree cut down or destroyed.

PRODUCTION HAS BEEN INCREASED

By Geo. H. Millen
President, The E. B. Eddy Company, Limited

We have had to reduce our hours of labor to eight hours but notwithstanding this, labor seems to be just as restless as ever. We have had no difficulty in getting all the raw materials that we require. We have had some little trouble in getting all the cars that we wanted, but on the whole, conditions have been very satisfactory. The climate during the present year has been very favorable for the pulp and paper industry.

Our production has increased from 2 to 5 per cent. during the year just past. We have enlarged the capacity of our toilet and tissue department, but no other enlargement is in contemplation at the present time. We sell almost our entire output to our home Canadian trade, that is, with the exception of an occasional car which we export.

It is pretty hard to say what the conditions are going to be for the next few months. In our opinion one man's guess is about as good as another's.

We have been considering the conservation of our wood resources for some little time, but nothing definite has yet been done.

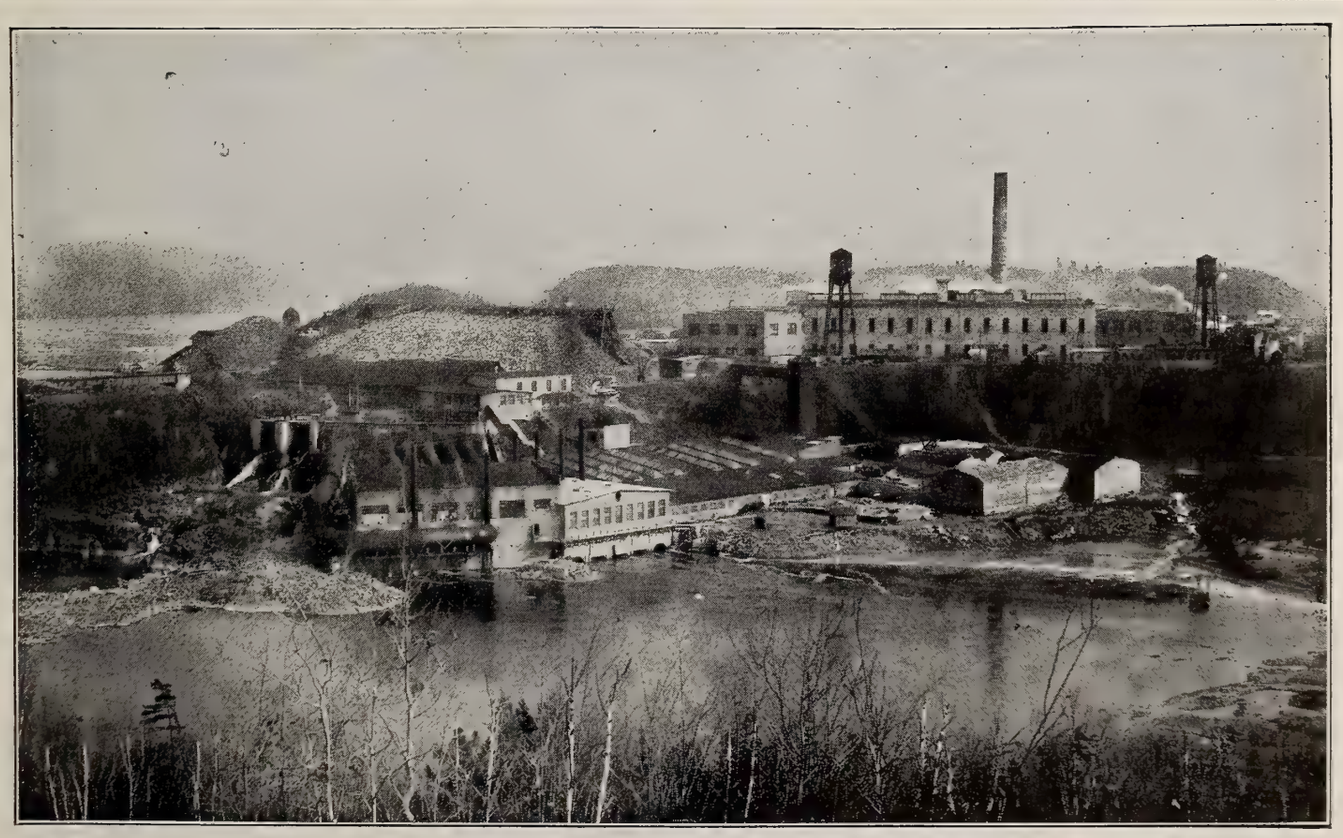
LABOR INTRODUCES UNCERTAIN ELEMENT

By E. W. Backus
President, Fort Frances Pulp & Paper Company, Limited

Manufacturing conditions, with reference to help, are very unsatisfactory. Wages are high and labor inefficient. Raw materials are scarce and high, although we have been able to secure our requirements up to this date, at some price. Transportation is very unsatisfactory; cars for loading are scarce. Climatic conditions are unsatisfactory for forest products operations.

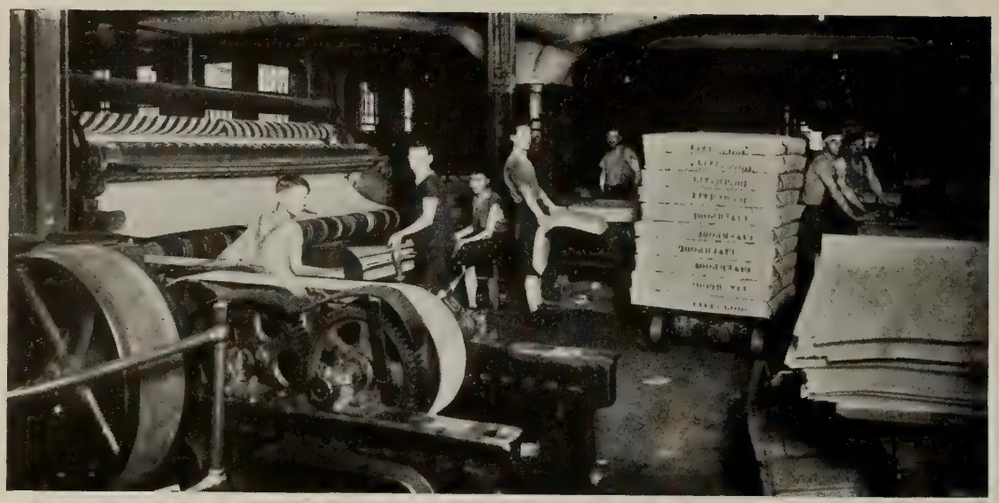
We have not been able to increase our production; on the contrary, the opposite is true. Our output to-day is approximately five to seven per cent. lower than it was a year ago. We have not enlarged the capacity of our plants and do not feel that conditions justify that step at this time.

The price of ground wood pulp is very high and strong; sulphite and kraft pulp is easy with supplies ample. Both newsprint and kraft paper are high and strong and will remain so for sometime to come. The business outlook is good, but production will be reduced on account of labor conditions, unless there is a marked improvement in that



A Comprehensive View of a Canadian Paper Mill

This is the Espanola Mill of the Spanish River Pulp & Paper Mills, which has recently been considerably enlarged to admit of the installation of two new machines



Scene in the packing room of the Laurentide Co. at Grand Mere, P.Q. Here paper is being cut and packaged up for shipment to Liverpool and elsewhere

element. However, we look for good business for several months to come.

We do not feel that industry is on a sound basis, as there is too much uncertainty ahead of us in the direction I have mentioned, viz., labor. However, in both paper and lumber, prospects are favorable for some time to come. In my opinion the business future largely depends upon the action of Congress, in the United States and Parliament in the Dominion of Canada. If they take hold of matters in the proper way it will go a long way towards stabilizing the situation.

COMPANY HAS DOUBLED PRODUCTION

By C. Howard Smith

President, Howard Smith Paper Mills, Limited

Production has been considerably increased; so far as we are concerned our production is over double what it was a year ago. At the present time we have almost completed the doubling of our Beauharnois plant and figure on increasing the production of our Crabtree plant by 80 per cent. The work on the Beauharnois plant will be finished about the first of January and that on the Crabtree the first of May. We have also taken over the Toronto Paper Company and propose to increase the production of this plant 25 per cent.

The market is strong with trend of prices bound to be upwards. Export trade has been very satisfactory. We have exported to a great many countries, and our goods have been well received. We have had repeat orders, and a portion of the increased production is to take care of this trade. We expect a continued strong demand for paper. With the organization and re-establishment of industries generally, the demand for paper is very heavy and will continue so for some time. We certainly regard the industry as stable, and on a profitable basis. The plants in Canada are in good shape, have been well managed and this should be one of Canada's best businesses.

CONDITIONS IN EXPORT FIELD

By A. E. Cadman

Statistician, Canadian Export Paper Company, Limited

While the exports of newsprint paper, in which we are chiefly interested, have increased very greatly in the last few years, these exports have been principally to the United States. At the present time there is a "famine" condition in the United States in the newsprint market and unless drastic measures are taken it is almost certain that many of the smaller publishers will be forced to close down. This means that the bulk of Canadian newsprint will be sold to the U. S. A. in 1920, and comparatively little will be available for overseas markets. At the same time many manufacturers are endeavoring to maintain their overseas connections, even although they cannot supply all the needs.

The outstanding fact in connection with the newsprint industry at the present time is that production has not kept pace with the demand. Both in Canada and the United States, especially the latter, restrictive legislation during the war period has had the effect of keeping capital out of the industry and, consequently, production lags a long way behind the demand. An advance of at least 35 per cent. in the consumption of paper in the States has led to the present shortage.

By the end of 1921 it is expected that the production of newsprint in Canada will have increased to about 2,000,000 tons per annum and for the next two years, at any rate, it is probable that a shortage of paper will persist.

INCREASED TONNAGE ON THE WAY

By L. R. Wilson

Secretary, Abitibi Power & Paper Company, Limited

Labor conditions with us since May, 1919, at which time we entered into an agreement with the Unions for the following year, have been more stabilized than formerly, as regards the men regularly in our employ. The supply of floating labor, however, while more plentiful than during the war, has not been sufficient at all times for our needs. We have had no trouble getting all the raw material we required and transportation facilities, with the exception of isolated cases of a few days, have been normal.

Our production has not increased during the past year and is to-day practically the same as a year ago. We have under consideration an increase in capacity in our newsprint production of approximately 85 tons per day, to come on the market in the latter part of 1920, and an additional capacity of a like amount to be ready in the early part of 1921.

The tendency of the market price for paper has been a gradually increasing one during the entire year of 1919, which has been caused by the extremely heavy demand and lack of sufficient tonnage to meet that demand. In sulphite news pulp there has been little variation in prices during the year 1919, but this is not true of groundwood pulp as same has increased in value during the past month about 100 per cent. with the demand very heavy. Owing to the

demand for paper for next year's consumption, it appears to us that all the production in Canada can be readily taken care of during the entire year.

The business at the present time is on a stable basis and will probably continue so for some time to come. The chief factor contributing to the extreme shortage of newsprint effective at this time is probably on account of the control assumed by both the Canadian and U. S. Governments immediately after the outbreak of the war, with the result that there has been no increase of production in newsprint during the past four years, and with the increased consumption on account of the war and other causes has resulted in there being an insufficient amount of paper to meet the requirements of the trade.

We have during the past year organized a re-forestry department through which we propose to replant yearly an amount of wood equal to that cut, with the idea of eventually reproducing a sufficient amount for our continual use. It is too early as yet to give results from our actual experience but we are satisfied that spruce wood can be reproduced to advantage in our vicinity.

ANTICIPATE FURTHER IMPROVEMENTS

By R. H. Ecclestone
The Rolland Paper Company, Limited

With respect to labor we have had very little difficulty. Raw materials have not only increased in price but have been very hard to secure and have been unreliable. This refers to both rags and sulphite pulp as well as chemicals and dyes. We have not had any great difficulties in connection with transportation.

The last six months has seen quite an increase in production, which is a result of splendid demand and the fact that many additions and improvements in machinery and equipment at our mills have been made. We anticipate further improvements to our present mills to increase our output.

With regard to export trade there has been practically none of it during 1919, whereas there was quite a lively business done in 1918. This is due mostly, we think, to the fact that those countries buying during 1918 bought very largely and have practically been out of the market during the present year. We believe that as shipping facilities and the exchange situation improve, export demand will also improve. It appears to us that the future of Canada's export paper trade should be bright.

Although the mills at present are more than taxed to their capacity to fill orders and there seems to be no likelihood of the demand falling off in the near future we consider the present demand abnormal and we feel that the capacity of the mills at present is sufficient to take care of a normal demand.

Money invested in the manufacture of high grade paper in Canada is only a small percentage of the total investment in the industry in Canada. Nevertheless, the production of high grade papers has increased to such an extent that there is practically nothing but Canadian made bond, ledger and writing papers used in Canada, and a certain amount of export has been done. The reverse was true a very few years ago when the market was flooded with English and American papers and the consumption of Canadian made papers was small.

MACHINES RUN TO CAPACITY

By F. J. Campbell
General Manager, Canada Paper Company, Limited

We have found labor, raw materials, and transportation during the past year all uncertain and expensive, though climate in this district has been all that could be desired, there being an excellent flow of water throughout the year. There has not been any material increase of production. Machines have been run to the limit of their capacity. The market has been steady and firm, the general trend of prices upwards, with a very active demand for all products. Our company has been in the export business for many years. Export business is still hampered by the uncertain conditions of shipping.

As underlying conditions are still abnormal, we don't believe it is possible to predict what will happen within the next few months. The pulp and paper industry in Canada has long been on a stable and, for the past few years, on a profitable basis owing to our possession of raw materials and good water power.

SCARCITY OF PAPER TO CONTINUE

By H. F. E. Kent
President, Kinleith Paper Mills, Limited

The labor element has been very uncertain. At the present time, however, we are able to get all the help we require, our advance in wages being about 110 per cent. over prewar days. Raw materials at the present time are scarce. While sulphite, the main raw material used in paper making, has been greatly increased in production, the quality has not been as good as it should have been. We hope, however, that once the mills get down to more normal conditions and



A huge paper machine under installation at the Espanola Mill of the Spanish River Pulp & Paper Mills. This machine, which started running on October 20, has a speed of 700 feet per minute.

are not rushed, that they will produce a better article. In fact, it has improved greatly in the last six months. The transportation situation from our own mill has been very reasonable, and we have no complaint to make on that score.

Our production has increased about 15 per cent. since 1914. This has increased through improved facilities and methods of handling the stock. Our output, however, is on about the same basis as it was this time last year. We have not enlarged our output but we have put in considerable additional machinery to enable us to improve the quality of our papers and the finish.

With regard to the demand for pulp and paper, in the early part of the year some of the mills were idle for part of the week. Our own mill, however, was kept running full, in view of the fact that we had sufficient export orders on hand to permit us to do this. In view of the fact that the demand for pulp and paper was easy, prices of the raw materials were down, but they started increasing about the middle of the year and have been going up ever since. The demand for paper is at the present time abnormal and we ourselves are refusing to accept any more orders at fixed prices, as we are sold up from three to four months ahead.

Our export business has been very satisfactory as far as we have gone with it. Not being a large mill, we have not, of course, gone into it to such an extent as we would have otherwise. At the present time there is such a demand for paper that there is no difficulty in getting export orders if one should want them, and you can almost get them at your own price.

We believe, for the next few months, that there is going to be as great a scarcity of paper as there was in the year 1916, when it was almost impossible to get one's requirements. The paper mills in this country, as far as I have been able to judge, and I try to keep in close touch with them, are on a stable and profitable basis and are all well managed, and we are looking forward for the paper industry to have a great future.

INCREASED PRODUCTION BY TWO-THIRDS

By Large Manufacturer

The labor situation has been satisfactory except for shortage of men for logging. Conditions surrounding the supply of raw materials and transportation conditions have been satisfactory. We have increased production by two-thirds. In the first half of the year we experienced a dull market but the market has since been keen and there has been a rise in prices. All papers are scarce, especially printing paper, both book and news. Canada has lower cost pulp than Europe and the pulp and paper industry should develop and the grade of its products should improve. The industry is now coming into a stable and profitable basis and has as advantages ample cheap power and wood. New plants embodying the best manufacturing practice will help and the technical side of the industry is important.

PULP AND PAPER EXPORTS EXPAND

By EDWARD BECK

Canadian Pulp and Paper Association, Montreal

A REVIEW of the exports of Canadian pulp and paper for the first nine months of the calendar year 1919 shows a net gain in value of $10,420,441, as compared with the corresponding period of the preceding year. The gain is wholly attributable to paper and paper products, the value of the exports of both chemically prepared and mechanically ground pulp having fallen off from last year. A summary of the returns issued by the Statistical Bureau at Ottawa discloses the following for the period under review:

	1918.	1919.	Gain or Loss.
Paper and mfgs. of	$32,022,265	$42,884,409	$10,862,144
Pulp, Chem. prep.	20,402,118	20,160,294	241,824
Pulp, Mech. ground.	3,624,514	3,424,635	199,879
Totals	$56,048,897	$66,469,338	$10,420,441

Exports of unmanufactured pulpwood for the period amounted to $8,881,810 or a decrease for the latter year of $2,050,750. The falling off in exports of wood is regarded as a favorable factor in the progress of the industry indicating a determination to utilize a greater proportion of its raw materials in home manufacture.

The United States continues to be Canada's best pulp and paper customer, with the United Kingdom, Australia, Japan and New Zealand following in the order named. The following statements give the principal importing countries and the value of their imports of Canadian paper for the first nine months of 1918 and 1919 respectively:

	1918.	1919.
United Kingdom	$796,405	$2,333,953
United States	27,061,043	33,843,474
New Zealand	672,379	429,243
Argentine Republic	201,729	441,150
Australia	2,049,867	2,158,544
British South Africa	190,876	351,678
Chile	16,301	17,138
Newfoundland	126,581	97,517
Peru	3,280	66,553
Brazil	69,601	33,196
China	29,503	42,909
Cuba	10,952	43,174
France	100,676	
India	37,897	26,950
Japan	189,661	172,858

The prospects of the industry for the coming year are regarded as exceptionally good, particularly for the production of printing paper, the demand for which continues greatly to exceed the supply. Many of the existing companies are enlarging their plants to take care of the extra demand and a number of new mills are either projected or are under actual construction. Of newsprint paper alone, Canada is now producing approximately 800,000 tons a year. If all the expansions now under way or projected are carried through to completion the next two years should see this output increased to 1,000,000 tons, with a production of pulp and other grades of paper to correspond.

CANADIAN MILLS TO GET BIG BUSINESS

By Newsprint Manufacturer

A very substantial increase in wages was granted to our employees in May, 1919. No further demands are expected until spring of next year. Raw materials have been somewhat more easily obtainable than during the last two or three years, but, on the whole, the prices have been advancing steadily. There has been some trouble from car shortage, but it has not been acute. The weather has, during the whole year, been favorable to operating conditions in this industry. As far as this particular firm is concerned, production has increased by about 10 per cent. in 1919 over 1918. The market price for newsprint paper has been controlled, both in Canada and in the United States, so that it is difficult to say what the tendency of the market would have been had this control not existed. It is expected that this control will shortly be relinquished and, as there is a great shortage of newsprint paper, both in Canada and in the United States, the market price of this commodity will tend markedly upwards and will bring the selling price more in line with the manufacturing costs than has been the case lately.

The outlook for the next year is, that, whilst production in the industry, as a whole, will be increased, due to some new machines coming into operation, it is wholly improbable that this increase in production will take care of the great demand, unless some measures are taken looking to a curtailment of the consumption of newsprint paper. I regard the pulp and paper industry as now thoroughly established in Canada and, as far as groundwood pulp, sulphite pulp, sulphate pulp, pulp boards and newsprint paper are concerned, I expect to see the Canadian mills in possession of the bulk of this business for this continent within a few years, this being due to the probability of the further development of our natural resources in standing pulpwood.

The Rubber Manufacturing Industry

EXPANSION in the manufacture of automobile tires has probably been the outstanding feature of the rubber industry during the past year. Factory enlargements have been taking place on a large scale which will give a very greatly increased capacity in the near future. So far as staple lines of rubber are concerned, production has been about normal, with increases in some lines and decreases in others. Manufacturing conditions have been fairly good, though there is a certain shortage of help, and cotton, which is an important raw material in tire factories, has been in short supply. Both in the domestic and export fields demand has been strong and manufacturers look for continued activity during the current year.



Washing Crude Rubber

CONSIDERABLE EXPORT BUSINESS OFFERED

By Kaufman Rubber Co., Limited

Labor and material have been expensive and scarce, and general operations consequently difficult. Our production has increased according to our ability to secure labor and raw material. We find that there has been no change in the demand for the kind and quality of our lines except for slightly better quality. Market conditions have been good.

Our home trade has been good, and on this account, we have been unable to consider much export business. Considerable export business has been offered. We believe most Canadian manufacturers can take care of home trade and some export business, which may last until Europe is able to manufacture sufficiently for home consumption. We are rather anxious to know if the lowered rates of exchange will cut off this export business earlier, as our plans for factory enlargement depend somewhat on the possibility of export business continuing for several years.

ANTICIPATES 100 PER CENT. INCREASE IN SALES

By F. E. Partridge

President, The F. E. Partridge Rubber Co., Limited, Guelph

We have no difficulty in securing all the male help we require. We are, however, not so fortunate with female help. We are running continuous advertisements in the local papers, as well as outside points, but at no time are we able to secure more than 50 per cent. of our requirements.

We have been able, up to this writing, to obtain all the raw materials needed to keep our mill operating. There is, however, at the present time a general shortage of long staple cotton, such as used for tire manufacture, with no immediate relief in sight.

We are increasing our production continually and anticipate our sales for 1920 will be 100 per cent. over the year just closed. We have just taken on considerable export business and our prospects are very bright in this direction. We anticipate all the business from overseas that we shall be able to handle and still at the same time do justice to our domestic jobbers. I can see no reason for a falling-off in business in our particular lines for some time to come, and I have no doubt that the rubber manufacturers of this country will take all necessary steps to increase their plants to keep up with the ever-growing demands. We have just completed an extension to our tire plant, which is now in operation and which will increase our production 100 per cent.

I have recently organized "The Northern Rubber Company, Limited," for the purpose of manufacturing a complete line of rubber footwear, which will bear the "Partridge" brand. This building is now completed and the machinery is being installed. Production will begin about February 1, 1920.

CONDITIONS IN THE AUTO TIRE INDUSTRY

By H. C. Lower

General Sales Manager, The Goodyear Tire & Rubber Co. of Canada, Limited, Toronto

Due to the fact that automobile manufacturers could not get sufficient materials for automobile production, there was practically no increase in automobile tires produced during 1919 over 1918 for the original equipment of new automobiles. The volume of automobiles in use took just about one-third more tires than during 1918. The lack of increase in original equipment business was more than offset by the materially increased export business.

I should say that the total automobile tire production of Canada increased at least 40 per cent. in 1919 as compared with 1918. Larger production on exports was prevented only by the necessary delays in getting machinery and equipment from the factories, who for several years before were working largely on war materials. The delays to some extent were also produced by strikes in the steel industry. Aside from this, automobile tire production was very slightly interfered with by labor conditions.

The working conditions for labor on automobile tire production are good. The social service work done by automobile tire manufacturers for employees is apparently more

extensive and practical than that done by most any other industry.

The supply of coal and cotton are the most difficult problems of the day. The coal situation may be only temporary, but the cotton situation will last at least for a year and likely for several years due to the shortage of production.

The Sea Island cotton crop of the Southern States was very small on account of the boll weevil. With the exception of the recent growths of cotton in Arizona, this Sea Island cotton produced the best duck for automobile tires. The Egyptian cotton makes a good quality of automobile tires, but there is not nearly enough of it to relieve on the shortage of Sea Island, and on account of strikes by coal miners and longshoremen, the movement of Egyptian cotton which was available, has been delayed.

Many of the newer and smaller automobile tire manufacturers will likely find it impossible to get enough good cotton to produce the quality of automobile tires necessary to their success and growth. There is every indication that for 1920 the demand for well-established brands of automobile tires will equal, if not exceed the supply. This is especially true of the companies who have developed a good demand in the foreign fields. The increased demand for tires in Canada has been quite uniform over all of the provinces.

The Canadian automobile tire production for 1920 should give employment to at least seven or eight thousand people at wages that would comfortably support the average size of family. It is interesting to note in this connection the way the Canadian automobile tire manufacturers have conducted themselves under the protective tariff. There is a tariff of 42½ per cent. on automobile tires. We are paying duties on our factory equipment, coal, cotton, in fact practically everything we use, and still are selling popular sizes of tires to the Canadian public at prices from seven to fifteen per cent. higher than the price of like tires in the United States.

It is this policy that makes it possible for the automobile tire industry of Canada to employ so many people. With these fair prices established by Canadian tire manufacturers and the high tariff on importation, only a very small percentage of the tires used in Canada are imported. Without this combination of conditions, there would be about two or three hundred brands of automobile tires manufactured in the United States receiving a share of the Canadian business, which would make it impossible for any Canadian manufacturer to build a production which would be worth mentioning.

COST OF PRODUCTION MUCH INCREASED

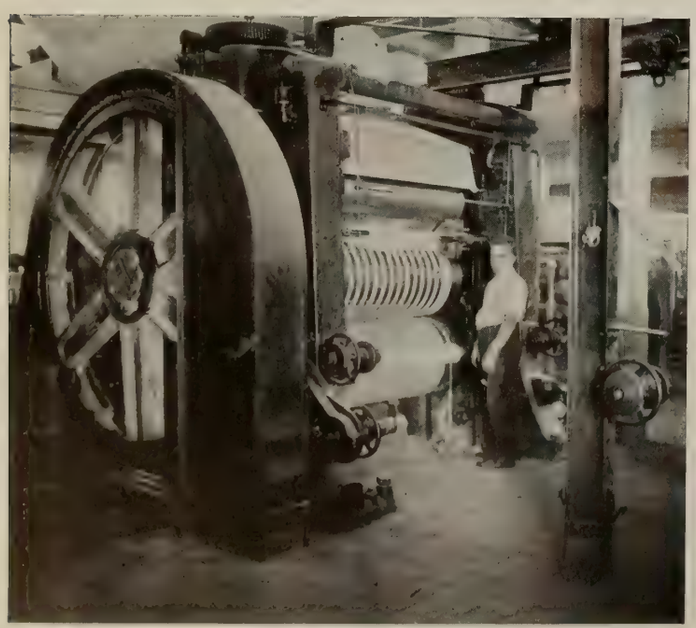
By Ontario Manufacturer

We have found that manufacturing conditions in the rubber industry during the past year have been very much disturbed as regards labor. Very persistent attempts to unionize the industry have been made but thus far these attempts have not been very successful. Wages have been increased two or three times during the year without corresponding advance in selling prices of the products. Shorter working hours with increased pay have diminished the per capita output and materially increased cost of production. Raw materials, especially cotton textiles, have been very difficult to obtain and high in price.

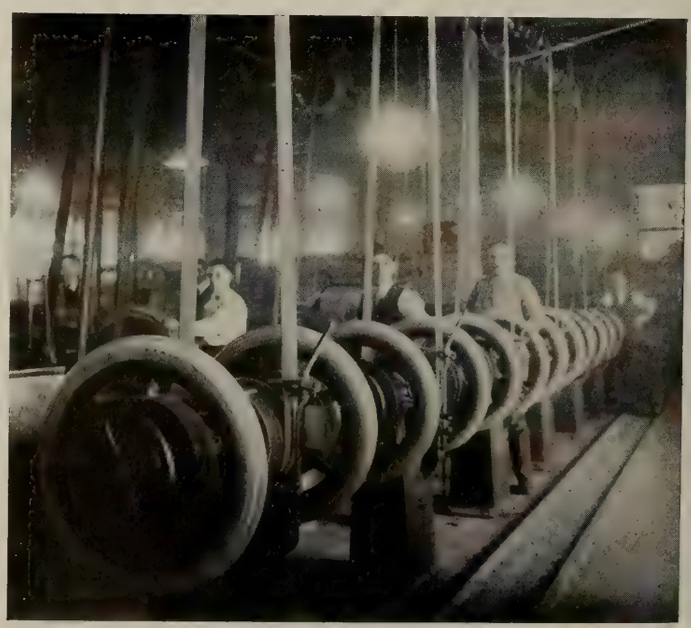
In certain lines production during the year has increased over preceding year and in other lines has decreased. Among the latter are included those goods regularly supplied to industries which were affected by the cessation of hostilities and re-adjustment of business conditions.

The general demand has been for goods of high grade rather than simply lowness of price. The buying public are growing to realize that the best goods obtainable in the rubber line are cheapest in the long run. Selling prices have not kept pace with increased cost of manufacture and expense of marketing products.

Opportunities for doing export business have materially increased both because of foreign demand for the goods and easier shipping conditions. The outlook is quite uncertain. Rubber goods such as this Company manufactures are not articles of luxury and the demand for them depends entirely upon general business conditions, modified so far as rubber footwear is concerned by seasonable or unseasonable weather conditions.



Calendaring Side Wall Stock



A Battery of Tire Buffers

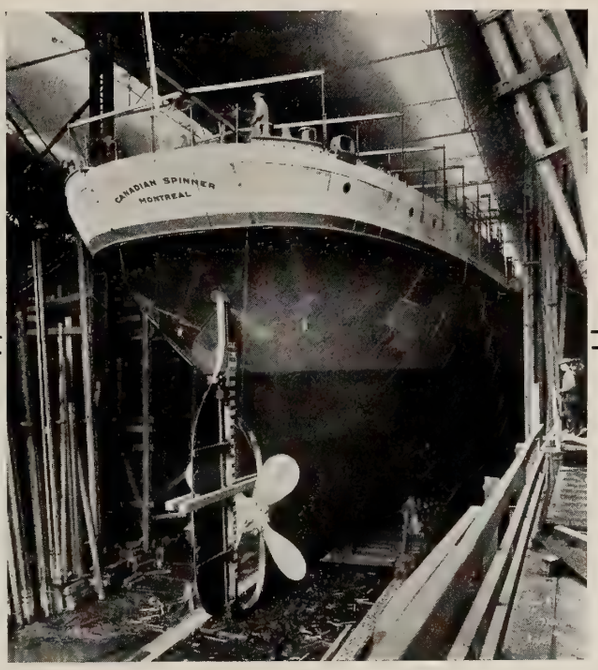
Photos by courtesy of The Goodyear Tire and Rubber Co., of Canada, Limited

Progress of the Shipbuilding Industry

SHIPBUILDING in Canada has been actively prosecuted during the past year, principally in connection with the building of ships for the Canadian Government Merchant Marine. There are still quite a number of these Government ships to be completed and work on them will keep the various shipyards busy for the greater part of the present year. Shipbuilding companies are somewhat doubtful as to what will happen after the Government orders are filled and in some quarters the granting of a subsidy is suggested so that the industry may be stimulated. Most builders agree that some form of Government aid will be necessary if the industry is to continue to prosper.

Operating conditions have been more favorable on the whole than in the previous year. The efficiency of the workmen is increasing and materials have been in better supply. Costs have advanced but still compare quite favorably with costs in Britain and the United States. It is believed that, were it not for the dislocation of exchange, a good many orders for ships would be coming to Canada.

A recent statement from Ottawa shows that Canada has 20,000 shipbuilders and $47,000,000 capital invested in the industry. The expenditure in wages is estimated at $42,000,000 a year.



A Canadian-built Freighter just before Launching

Photo by courtesy of Canadian Vickers Limited

GOVERNMENT ASSISTANCE IS NECESSARY

By L. McMillan

Supt. Shipbuilding, N. S. Steel & Coal Co., Ltd., New Glasgow

Our experience is that the supply of labor is ample, principally on account of the eastern car plant being closed and the steel company working only about 50 per cent. capacity, although there always seems to be a shortage of skilled labor in certain trades, such as boiler-makers, platers, coppersmiths, and men familiar in general with the equipment on board ship.

We have no difficulty in supply of raw material, except that delivery is sometimes slow. It seems to be harder to get delivery when plants are working half-time than when they are working full capacity. With plate mill at Sydney in operation, we should have no difficulty in getting prompt delivery of plates. We have always had more or less trouble in getting fittings, such as boiler mountings, engine-room auxiliaries, etc., in Canada. This difficulty, of course, is being overcome as the various manufacturers are becoming more familiar with owners and classification society's requirements.

Costs with us have decreased although average wages have increased, and in many cases cost of material and equipment. The reason for this is the more up-to-date methods of construction, such as joggling frames, more yard equipment, better organization and the men becoming more familiar with the work. There is, of course, still room for improvement.

Orders for ships are not as numerous as during the war. We have no enquiries from private ship owners in Canada, but we have sufficient Government work on hand to keep us working until July, 1920.

The future of Canadian shipbuilding in my own opinion, is not bright without assistance in some form from the Government, or unless costs in the Old Country are increased considerably. We cannot expect to obtain Government contracts much longer. Any assistance, therefore, we presume would be in the form of a bonus or subsidy. Government assistance might possibly take the form of financing boats built on speculation in order to keep a shipbuilding organization intact during dull periods, as this is most essential for Canadian shipbuilding; otherwise skilled men drift away when there is little or no work, and it is hard to get them together again. This difficulty is not serious, say, on the Clyde, where there are so many shipyards with skilled labor of every kind available.

We have finished the steamer *Watuka*, 2,400 ton deadweight, for ourselves, and expect to deliver *Canadian Sealer*, 2,800-ton deadweight, for the Canadian Government, this month (December). We have another steamer of the same size for the department nearly ready to launch. She will be delivered early next spring. We expect to lay the keel for another of the same kind this month. This ship is being built on speculation.

CONTRACTS FOR MOST OF YEAR

By P. R. Miller

General Manager, Canadian Vickers Limited, Montreal

The supply of labor is quite ample at the present time for work in hand. Efficiency of labor is as good as it has been in the past, and is gradually improving the longer the shipbuilding industry is kept going in these works. The supply of raw material is, on the whole, good, although the forecasted deliveries in steel and coal are not so good as they used to be. The only other important factor, so far as manufacturing conditions go, is the adverse action of exchange on the procuring of orders from Europe which decidedly mitigates against business. The cost of production has not increased during the year.

We have sufficient contracts in hand for new ships to keep us occupied until November, 1920. So far as our own works are concerned, we anticipate being busy on shipbuilding

for several years to come, provided labor keeps its head and does not boost wages, and also provided labor is prepared to recognize that as the cost of living comes down the cost of wages, which are at present abnormally high, should also come down.

The other factor mentioned above, viz., exchange, is undoubtedly having an adverse effect on the shipbuilding industry in Canada, and it would seem that the only way to overcome this in the meantime would be for the Government to assist the industry by some form of bounty or subsidy.

By the end of this year we will have delivered, during the season of 1919, six 8,350 ton cargo boats to the Canadian Government, one 8,350 ton cargo boat to French owners, and two 4,350 ton cargo boats to the Canadian Government. Of these, seven were launched during the open season of 1919.

We are now laying the keels, and construction has commenced on two 8,350 ton cargo boats for Norwegian owners, and two 8,350 ton cargo boats for the Canadian Government for delivery 1920. These will be followed by two other 8,350 tonners for the Canadian Government and two more cargo steamers for Norway. We have a promising enquiry for a small passenger vessel for foreign interests.

The above work is, of course, distinct from any ship repair work which we do during the open season of navigation on our dry dock, and other contracts which we take from time to time for the construction of boilers and ships' auxiliary machinery for outside parties.

FUTURE DEPENDS ON LABOR COSTS

By E. W. Izard

Yarrows, Limited, Victoria, B.C.

In the early part of 1919 the supply of labor was less than the demand, but now the supply is becoming greater and the consequence is, the efficiency is becoming higher. The increase in the supply of labor has been chiefly brought about by the return of mechanics and others from overseas, and the demand for labor becoming less on account of the decrease in shipbuilding on this coast. The supply of raw materials is improving owing to the removal of war restrictions and better shipping facilities.

The cost of production during the last year has increased slightly, chiefly on account of the increase in wages per the Robertson award, and also on account of the increased cost of lumber and other materials.

Contracts for ships have been less in number and are more difficult to obtain on account of the present keen competition which prevails.

The future of the Canadian shipbuilding industry depends chiefly on the cost of labor, which is at present too high for competition with Europe. On the west coast of Canada the cost of labor is higher than in the east, and the working hours shorter, and that, together with the cost hauling the material from the east or U.S.A., puts the west at a decided disadvantage when competing with Eastern Canada.

During the early part of the year we completed one steel stern-wheel steamer, 165 ft. x 35 ft. x 7 ft., and shipped same to India for re-erection, and we have just lately completed a steel ferry 90 ft. x 27 ft. x 5 ft. for service on the River Fraser.

COSTS COMPARE QUITE FAVORABLY

By L. Dahlgren

General Manager, Dominion Shipbuilding Co., Ltd., Toronto

The outlook for shipbuilding in Canada is fairly bright for the next two or three years, providing labor and material will get into a settled condition, labor especially. In comparing costs between the United States and Canada, I find that we compare very favorably; also in comparison between Great Britain and Canada, that we are nearly at a par as to costs. In view of the fact that British shipbuilders are filled up with contracts for some time to come, I think the foreign buyer will look to Canada before going to the United States. However, I do not anticipate many foreign orders being placed until the present rate of exchange gets better, which will probably not be for some little time.

I think in order to encourage shipbuilding in Canada, that the Government should give a bounty of say from $5 to $15 per ton deadweight, and this to continue until we get our labor as efficient as in Great Britain, which will probably take three or four years. Also the carrying out of the proposed deep waterways would be a great boon, especially for the lake shipbuilders. Everything considered, I look for the time to come when Canada, through her natural resources, etc., will be in a better position to build ships than any other country.

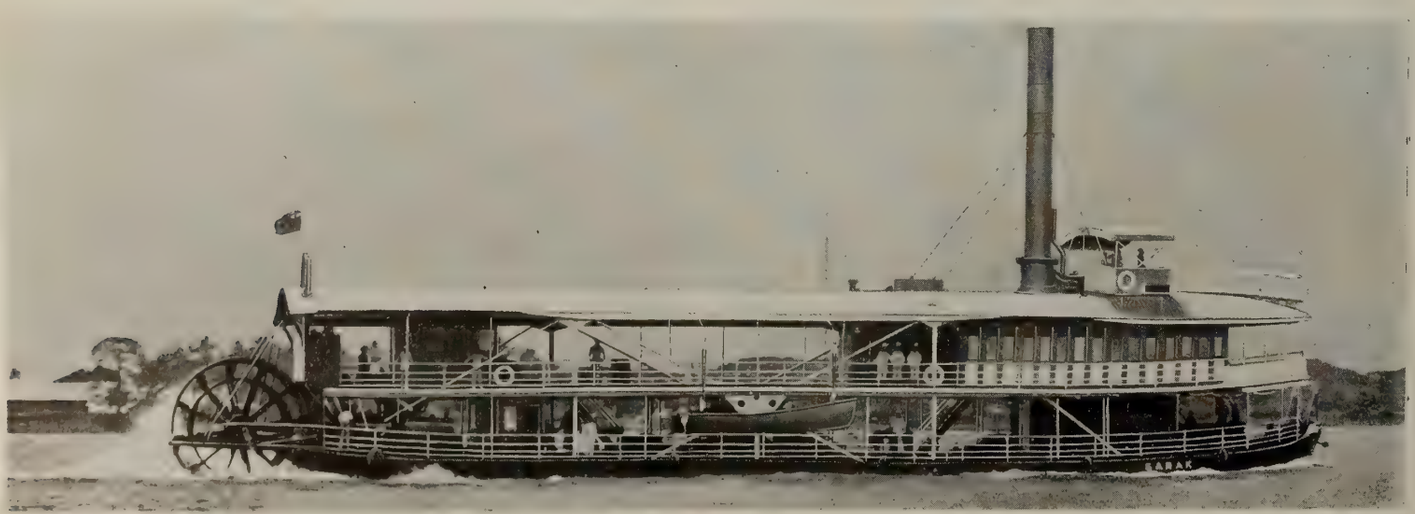
FUTURE NOT BRIGHT AT MOMENT

By John S. Leith

General Manager, Collingwood Shipbuilding Co., Limited

We have no trouble at the present time regarding the supply of labor as we are not working nearly up to capacity. Regarding efficiency it will take years of steady employment to bring this up to the standard obtained in shipyards in Great Britain which are our worst competitors at the present time. At the moment we are not having any trouble regard-

(*Continued on page* 280)



River Steamer for India: Built at Victoria, B.C., by Yarrows, Limited

Conditions Among Stove Manufacturers

IN the stove manufacturing industry, the first half of 1919 was rather quiet, with demand slack. In the latter half of the year, demand developed rapidly and manufactures were fully occupied in meeting it. Some difficulty was experienced in getting help and there was also trouble over raw materials with the result that output was not increased to any great extent. As with other lines of goods, so with stoves the demand has been for the more expensive makes. Export trade has not been a factor though there have been enquiries which may lead to the establishment of connections with foreign markets.

SPRING BUSINESS TO BE BETTER THAN USUAL

By E. H. Gurney

The Gurney Foundry Co., Limited, Toronto

All types of labor have been scarce, in view of demand. There have been ample supplies of raw materials until this fall. The stove industry has, of course, felt both the steel and the coal strike. I would think that the general scale of operations has been lower than demand called for, due to the labor situation. In my opinion, production this year has been slightly better than the production of the previous year, but not adequate to meet the demand.

I do not consider that there has been any important change in tendency this last year with respect to kind and quality of goods in demand. The trend of prices, due to rising costs, has been up. As far as marketing conditions are concerned, the stove manufacturers, like all other manufacturers, are not anxious to make commitments far in advance; consequently conditions under which orders may be booked have been under some limitation.

Export business is not an important factor at all with any of the Canadian stove manufacturers. The principal reason is because the type of stove made in the United States and Canada is different entirely from that sold in most foreign countries. Due to the fact that export orders have not been in sufficient quantity to justify the expense, and due to the fact that the home market has pretty much taken the capacity of the manufacturers, it has not been feasible to accept such business as has offered.

In the stove business the important demand comes in the fall. I would think that spring business will be better than usual, and I can have no opinion with respect to conditions as far ahead as next fall.

STOVE PRICES ARE CONSERVATIVE

By W. S. Fisher

The Enterprise Foundry Company, Sackville, N.B.

Manufacturing conditions as regards labor have been unsatisfactory, especially during the past two or three years. As to raw materials, they have been pretty scarce and prices anywhere from one to four hundred per cent. above the former. The result is that our general operations have been greatly hampered, and, while the selling prices have advanced a good deal, they have not increased in proportion to the increased cost brought about as above.

Production for the year in tonnage is very little more than a year ago. The first six months' trade languished, as everyone expected lower prices. After that it came with a rush, and during the latter period we were at times unable to fill our orders. For a time during the war the tendency seemed to be towards the purchase of cheaper goods, but during the past season the demand for the very best goods has been much more marked and at present the demand continues along this line.

Export business in stoves has never been a factor of consequence in Canada, as up to the time of the war it was impossible for us to compete with the manufacturers in the United Kingdom and U.S.A. For the past year or two inquiries have been coming to Canada from other parts of the empire, and some business (though yet small), has developed. What the final result will be we are unable to judge at present, and will not until conditions become normal once more. Meantime, as in all other lines of manufacture, we feel that every effort should be made to capture any foreign business that it is possible to secure, as by and by, when the next depression comes, we will need it.

As to the general outlook, we are under the impression that the manufacturing facilities in Canada in the stove line are fully adequate to meet the normal demand. Later, if immigration flows into this country freely, there may then be opportunity for the enlargement of the present facilities.

In our opinion, the stove manufacturers have been ultra conservative in advancing prices, having delayed making advances that should have been put into effect long before they were, and to-day the new total advance made by the stove manufacturers in Canada is not in proportion to the increased cost, and it is a curious thing that there are many instances of stoves made from American patterns being sold for less money in Canada than goods from identically the same patterns made in the United States, where prices in these lines have been advanced to a much greater extent.

PUBLIC WANT LOT OF NICKEL TRIMMING

By Ontario Manufacturer

We found that at the beginning of the year there seemed to be a plentiful supply of labor and there was no difficulty in getting any material that we wanted. The general public, however, was very backward about buying, feeling sure that a reduction in prices was not far off. This condition continued until the early summer, by which time higher labor costs and advancing costs in raw materials made higher instead of lower prices necessary. The public became convinced that higher prices would prevail and began to buy freely, with the result that our output increased over what it had been a year ago, but so far as we are concerned does not reach in units the number we made in pre-war years. Higher costs have more or less forced the sale of medium-priced lines, but even on these the general public wants a lot of nickel trimming and will not be satisfied with the planer type of ranges which are just as efficient and could be sold for much lower prices.

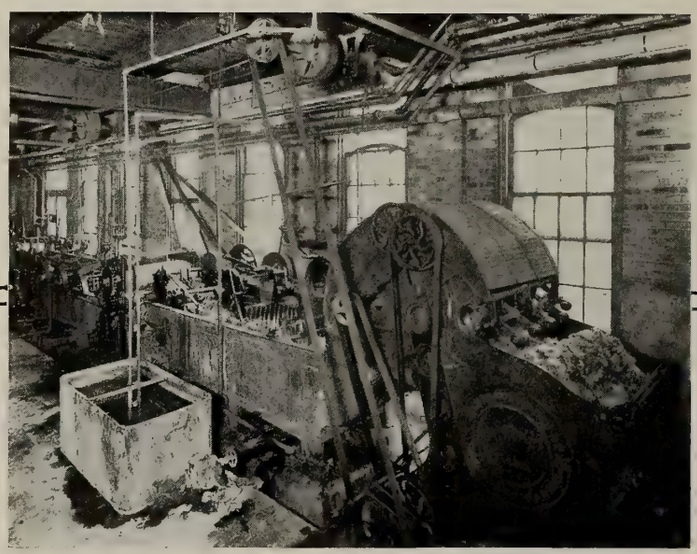
Another development has been the increased use of porcelain enamel on ranges, both cast-iron and steel, and there seems to be a distinct tendency towards use of more enamel on ranges during the next year.

We are looking forward to good stove business during 1920. We are confident that manufacturing facilities in

(*Continued on page* 244)

The Textile and Associated Industries

EMBRACED under the general head of textile industries are so many different undertakings that it is difficult to summarize conditions in them all within the limits of a single paragraph. A review of the reports published on this and the following pages would indicate that activity has been general; that labor scarcity and a lack of raw materials have been in evidence, and that capacity has been considerably extended. The market has been strong, with popular demand tending towards goods of quality and high price. Export trade has been done to a certain extent, though domestic demand, particularly in the last half of the year, has become so pressing that manufacturers in many instances have given up export opportunities. Through most of the reports there runs a note of optimism, and the opinion is generally expressed that the textile industry in Canada is now firmly established. The various divisions of the industry will be found classified under such heads as knit goods, carpets, clothing, shirts and collars, etc.



Machine for Cleaning and Scouring Raw Wool

Photo by courtesy Toronto Carpet Manufacturing Co.

GENERAL REVIEW OF COTTON INDUSTRY

By F. G. Daniel
General Manager, Dominion Textile Company, Limited

The year now closing has been for the cotton industry in Canada one of great activity and varied difficulties. Owing to the constantly rising costs of materials and commodities of every description, living costs, until recently, tended to increase monthly, causing a very large amount of labor unrest, accompanied by demands for increase in wages, reduction of working hours, and numerous other requests, both reasonable and otherwise. It seemed impossible for a manufacturer, notwithstanding his desire to have his wage-roll keep pace with his employees' needs, to be entirely free from labor troubles, which was the cause throughout the year, largely, for reduced efficiency and production. I feel, however, that, in this respect, we are gradually reaching a more sane basis, as is evidenced by the tendency of the operatives to settle down more steadily to work.

During the four and a half years of war, consumption of raw cotton and cotton goods for army purposes was enormous, and civilian requirements received secondary consideration, with the result that there is a world-wide shortage of cotton goods. Raw cotton, especially, has been very seriously affected, partially for the reason mentioned, and largely by five crop failures in succession. From an average pre-war price of, approximately, 12c. lb., cotton has risen to, approximately, 48c. lb., delivered at the mills, exclusive of war tax and exchange. Put in another form, the cost of the cleaned cotton in a pound of finished cotton goods which, in 1914, was 14c., is to-day 65c.

Until recently, the output in the cotton mills in Canada was slightly lower than a year ago, but I am hopefully looking forward to an improvement in the output during the next few months.

Owing to the inability of manufacturers to secure machinery, there has been very little increase in cotton mill capacity in Canada during the past year—I think probably 3 per cent. would be the maximum. This country had in operation in 1914, approximately one million spindles, with accompanying looms, etc., employing 22,000 operatives, with an output valued at, approximately, $27,000,000. This year there were in operation about 1,138,000 spindles, giving direct employment to 24,000 operatives, and a production valued at about $70,000,000. A fair estimate of machinery on order for the various companies in Canada would represent an increase of, approximately, 20 per cent. in spindleage and looms, and practically all this machinery should be producing before the end of 1920.

The experience of the past few years has given the cotton manufacturers of Canada an opportunity to demonstrate *the value of the industry to the country*, and that their cloths and yarns have not been surpassed, either in quality or finish, by those of any other country. Owing to the fact that this country is to-day, I believe, the lowest-priced drygoods market in the world, the demand for cotton goods of every description for home consumption has been without parallel. The export business is practically *nil*, as the needs of the home market are greater than the productive capacity.

I have every confidence that the trade situation in Canada for the next few years will be, at least, as good as that of any other country in the world, provided the wave of extravagance, now one of the world's most serious problems, can be checked, and a strong curb placed on the importation of non-essential articles. There is great need for the manufacture, within the country, of many lines of materials, supplies, etc., at present imported, as we cannot much longer continue the extension of credits to Europe whilst paying a heavy toll in the form of depreciated exchange upon such commodities as we have to import from the United States.

SCARCITY OF COTTON AFFECTS INDUSTRY

By R. G. Tolmie
Canadian Cottons Limited, Montreal

Our mills have suffered more or less during the past year from a shortage of labor, although conditions in this respect have shown a little improvement during the past month or so, as is usual with the approach of winter. As regards raw

materials, our interests naturally are chiefly in raw cotton. Unfortunately there is a great scarcity of this material this season owing to the short crop, and also the increased demands from Great Britain and Europe since the war is over. The price has, in consequence, advanced steadily.

Our production at the present time is very slightly in excess of what it was a year ago. The constant advance in prices during the past two or three years has brought about a somewhat greater demand for the lower lines of goods which we make, but generally speaking, there has not been a very material change in the range of cloths which we have been making for some years.

We do not interest ourselves in normal times in export business. The only exporting which we are doing at the present time is in some grey cottons for Roumania. The demands of the home trade are such that we are not looking for further developments in the export line.

Owing to the general world shortage in all cotton goods, as in commodities of nearly every description, there is very likelihood in our opinion that the demand will be in excess of the supply for the next few years.

NEVER SO FAVORABLE A TIME

By W. Tinker

Secretary, Canadian Woollens Limited, Peterborough

Our experience as regards labor supply during the past year has been very satisfactory. We have increased wages to same extent, and have had no labor troubles of any kind. We believe the same may be said of the whole woollen industry in Canada. Raw materials have been at times very difficult to obtain. Quite a large proportion of this comes from Great Britain, and the coal strikes in Yorkshire, dock strike at Liverpool, and the railway strike in Great Britain, had a great effect on supplies of raw material, but shipments have been coming forward with regularity from U.S.A., South America and Australia, which have enabled us to keep up our production. The prices of raw material have been very high. In fact, at this time almost any price may be obtained for wool tops for immediate delivery. General operations on the whole have been satisfactory. We have had many troubles, of course, but all have been overcome.

Production has increased to a slight extent owing to the efficiency on the part of the executive, who have given very careful attention to this matter. The present output is about 10 per cent. higher than last year.

Goods in demand have shown a marked tendency towards a better quality, at of course, higher prices. The latter were never so high as they are at present, and the prospects for spring and fall for 1920 all tend towards still higher prices for all manufactured articles. Marketing conditions have been greatly in favor of the seller. In fact, no effort is needed to dispose of anything in the woollen trade, the fundamental feature being delivery.

The export trade is again showing up a little, but prices for this are not as large as the home market, with the result that many mills are not taking any export business at present. Our own opinion is that for the next few years it will not develop to a great extent, owing to the fact that the home market is starving for goods and must be supplied.

The outlook for the future, in our opinion, is extremely bright. We do not think there ever was such a favorable time for manufacturers in the history of the Dominion. Wages and other manufacturing costs in Great Britain are extremely high and this, we believe, will have the effect of keeping the British manufacturers out of this market to a very great extent. The demand for woollen goods in Canada is likely to keep up, and the manufacturing facilities at present are not sufficient to keep pace with the demand. We, ourselves, are planning, in fact we have the machinery in course of erection, which will increase our output 50 per cent.

O. BUTLER, *Vice-President and General Manager, Canadian Connecticut Cotton Mills Co., Sherbrooke.*—"We find that production per machine per hour per operative has decreased. Our entire product goes to tire makers in Canada. We believe that the demand is likely to increase for our particular fabric, and we have plans for the enlargement of our factory. This will take place in 1920, when our plant in Sherbrooke will be doubled in size."

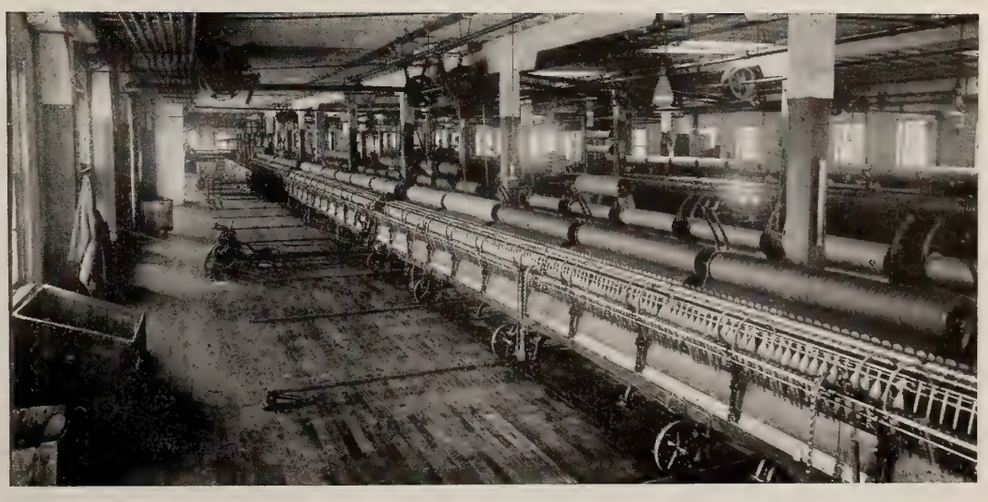
OUTLOOK FOR SOME MONTHS IS GOOD

By C. T. Grantham

General Manager, Empire Cotton Mills, Limited, Welland

We have had no serious difficulty during the year with labor. We have been able to secure an ample supply of raw material, and our general operations have been successful. It is impossible to increase our production, as we are now running ten hours per day, and over 40 per cent. of the capacity running nights. This is about the same condition as existed a year ago.

There have been no important changes as regards the kind and quality of goods in demand or in marketing conditions, but prices are higher than they have ever been since the Civil War. We know nothing about the exporting business, as we have not yet had any goods to spare for this purpose, except one case where we sold a large quantity



View of the Mule Spinning Department in a Canadian Textile Factory.

Photo by courtesy Monarch Knitting Co., Limited, Dunnville.



Series of Ingrain Carpet Looms



Shearing Machines for Wilton Carpets

Photos by courtesy Toronto Carpet Manufacturing Co.

through the Canadian Trade Commission to the Roumanian Government.

The outlook for at least some months ahead is very good, and we believe the demand will keep up until midsummer at least. We are of the opinion that manufacturing facilities will not be adequate to keep pace with the demand during that period. Plans for factory enlargement have been considered, but nothing definite decided upon.

A Quebec Manufacturer.—"Our experience of manufacturing conditions as regards labor, raw material and general operations has been the most difficult we have ever experienced, and at the present moment shows no signs of improvement. Raw cotton conditions have never been so bad. Our production this year and last is the same, with the exception of loss last year due to influenza. The demand for our goods has continued excellently. We are not posted in lines other than those manufactured by us. We have never exported, with exception of a small lot of goods to Roumania. We believe the demand will continue."

UNABLE TO INCREASE PRODUCTION

By Ontario Manufacturer

During the year just closed our output has been somewhat restricted, owing to scarcity of skilled labor, but we are gradually getting back to normal. The hours of labor were reduced from 55 hours per week to fifty hours. This had an immediate effect upon production, which dropped almost in proportion, ten per cent. This to some extent may be overcome by additional machinery, but at the present time we have the decreased output. We have not been able to increase our production and have been running at the utmost capacity for several years.

We have continued to make our regular lines and have found a steady demand for all we could produce. Having had a steady demand for all goods we could manufacture, in the home market, we have not offered any goods for sale for export. A number of mills, however, are doing an export business.

The business outlook for the year 1920 is very good. There is every prospect of there being a ready market for the products of Canadian woollen mills. Fine wools (merinos) have reached an extraordinary figure and have steadily risen for the last six months. A recent circular received from London, England, describes them as having gone to dizzy heights. It is generally recognized that there must be a drop in prices for these fine qualities, but the difficulty is to know when it will occur. During the past week competition has been very keen for them at top figures.

CONDITIONS IN THE LINEN INDUSTRY

By Wm. Berry

General Superintendent, Dominion Linens, Limited, Guelph

We have been unable to secure enough skilled help to keep our plant running up to full capacity. However, we have no complaint to make as to supply of raw material or transportation. General conditions in our works have been satisfactory, and in spite of handicap previously mentioned, we have been able to increase our output during the past year.

Referring to market conditions, the demand for our goods has been far in excess of our possible output. On account of the steadily advancing markets for raw material, prices of manufactured products have been advanced very materially during the past year.

From present appearances, the demand will be maintained, and until there is a decided drop in raw materials, markets and a general unsettlement in trade conditions, we think the present demand for our goods will be maintained.

It is not our intention to make any further enlargement. Additional equipment will be bought to round out the production of the different plants as this demand may develop.

CONSTANT DEMAND FOR CANADIAN WOOLLENS

By R. Thomson, Jr.

Hawthorn Mills, Limited, Carleton Place

Our experience of manufacturing conditions as regards labor has been fairly good. Our raw materials have been extremely high priced, but reasonably freely obtainable. Our labor conditions are probably more favorable in a small town than they would be in larger centres. In the smaller towns the labor is more settled.

Our production was much reduced in the early months of the year owing to the armistice and the extremely unsettled state of mind of the purchasers of goods. However, as woollen manufacturers, we were able early in the year to obtain fairly large-sized orders for woollen goods of varying classes from Roumania and Belgium, and the credits for these being guaranteed by the Canadian Government, re-

lieved the situation very much indeed, and kept our employees in employment, whereas otherwise they would have been added to the large number of unemployed and unrestful people in the country. Later in the year people regained confidence and purchased more freely, with the result that the product for 1919 over all in the woollen manufacturing in Canada must have very greatly increased. Our own business here has overcome the lessened production of the early months of the year, and will show a fair increase over all for the year.

The tendency as regards the kind and quality of goods in demand is decidedly towards better goods and higher prices. So much is this so, not only in Canada, but generally speaking the world over, that fine wools have reached the pinnacle of high prices, while the coarse, low-grade wools are comparatively cheap at the present. To illustrate, there are wools on the market to-day on a clean basis that can be bought as low as 70c. per pound, while fine merino wools on a scoured basis are worth $2.90 to $3 per pound. Marketing conditions are good, from the manufacturers' point of view, owing to the great demand—the demand far exceeding the supply.

There never was any export business in woollen manufacturing worth while being considered good business, from Canada, until the war. Since the armistice was signed, and for the reconstruction of foreign countries, Canada has sold to date ten million dollars' worth of woollens for export, and during this year from 50 to 65 per cent. of these goods have been made and delivered.

We size up the outlook for the future to be a constant demand for Canadian goods for some considerable period, inasmuch as the Canadian mills have increased their facilities and bettered their conditions generally during the war time and also during the year 1919. Moreover, the Canadian buyer has been forced, owing to the shortage of woollens from Britain, to buy largely at home, and to supplement that buying by purchases in the United States. Canadian woollens have at last come into their own, and the writer believes that for those mills who make really first-class goods both in woven fabrics as well as underwear and hosiery, that they may look forward with great confidence to be, for years to come, constantly well engaged. Having stated previously that the demand is greater than the supply, naturally leads to the increasing of facilities, and as far as the procurement of textile machinery will allow, mills have increased both in buildings and equipment and are continuing to do so, to a very great extent. Our own plans are for further increase, as far as may safely be done within the compass of our environment. We have added very considerable machinery and are making much higher classed goods now than at any previous time.

Knit Goods

STRONG LEANING TOWARDS QUALITY GOODS

By K. C. Turnbull
Managing Director, R. M. Ballantyne Limited, Stratford

While there has been a considerable shortage of labor, and while we could have employed a good many more hands than we have employed during the past year, the situation in this regard has not been nearly as serious as the raw material situation. We have had very great difficulty in getting anything like an adequate supply of yarns for our purposes, and we have had to sacrifice a good deal of business because of the lack of raw material. The fact that we could not get all the raw material we required minimized to some extent the fact that we could not add to our plant in the way of machinery, it being a very difficult matter to get delivery of knitting machines of the class we operate. In no other respect have we had very great difficulties.

Production has increased, being a very considerable amount in excess of the output of a year ago. We refer of course to the actual units produced rather than to increase in the dollars of output, which naturally should show an increase owing to advanced prices.

The tendency as regards the kind and quality of goods in demand is showing a very strong leaning towards the higher-priced goods. The demand for lower-priced articles does not seem to exist. Our trade has run almost entirely on the better class of goods at higher prices. Export business has been offered us, but we have not been in a position to undertake anything for export and can say nothing as to how this trade is developing.

From the business we have already booked for next year, it looks as though the demand will be greater than it has been during the past year, and we would say that the manufacturing facilities will have great difficulty in coping with this demand. We refer, of course, only to the lines of goods we manufacture in our own factory. We have already enlarged our plant, have added 100 per cent. to the manufacturing floor space, and we expect to be fully employed for the next twelve months at least.

DEMAND GOOD FOR ANOTHER YEAR

By J. R. Moodie
J. R. Moodie & Son, Limited, Hamilton

Manufacturing conditions at the present time are unsettled. The labor situation is improved to a small extent since the war ended but there is difficulty in getting raw material, and this of course means that our production is limited. Notwithstanding, production at the present time compares favorably with that of a year ago.

As to market conditions, we find a tendency toward the buying of a better class of ladies' and children's underwear. The demand for a cheaper line is dropping off to quite a great extent. Export business is being done on a very limited basis.

We have no plans in the way of factory extension. We believe that owing to the shortage of knitted underwear, that the demand for the same will continue to exist for one year if not two years, from the present time.

SUPPLIES ARE DIFFICULT TO OBTAIN

By J. A. Burns
General Manager, Monarch Knitting Co., Ltd., Dunnville

Our experience during the year in regard to labor and raw materials has been that female labor is particularly scarce, and it is impossible to get sufficient female employees to manufacture sufficient goods to supply the requirements of the trade. The situation on raw materials is very serious. Prices have greatly advanced, and supplies are difficult to obtain. This applies particularly to mercerized cotton yarns, and wool tops. Qualities of 50's and finer can only be shipped from England on obtaining license from the British Government, and licenses are only granted for a small percentage of quantity applied for. In some instances only 20 per cent. of quantity applied for is being allowed.

Production has not increased. In fact it has decreased as compared with a year ago. This is caused not only by scarcity of labor, but inefficiency of help. Employees are earning big wages, but a large percentage do not put in full time. We find the heaviest demand on the better lines of goods. There is a brisker demand, particularly for higher-priced lines. Export business during the present year amounted to about one-fifth of our output. We do not antici-

pate, however, being able to take on as large an export business for 1920, unless orders are received at an early date.

It appears to us that the capacity of all mills will be taxed to fill the requirements for domestic and export business. If female labor could be brought to Canada from England, Ireland or Scotland, we believe there is sufficient machinery to take care of all business that could be secured. We are increasing the output of our St. Catharines hosiery factory by 50 per cent.

LABOR SCARCITY HAS BEEN DRAWBACK

By C. Turnbull

The C. Turnbull Co. of Galt, Limited, Galt

Our experience in regard to labor is that labor is difficult to get. We are very short on female help, and cannot get production proportionate to lesser number of hours we have been working since the beginning of the year. We have had no difficulty in getting raw material. Our production has not been increased and output will be from 10 to 15 per cent. less than a year ago.

The better quality of goods have been more in demand than the cheaper, and we have had no trouble in getting fair prices. Marketing conditions have been fairly good. Export business has not become a factor to any extent and is developing very slowly.

We think that the demand will keep up at least for another year. We have manufacturing facilities to meet larger demand, if we can overcome difficulty in procuring help. We have no plans for factory enlargement, as there is no inducement to enlarge with labor scarcity such as we experience and have experienced all year.

MANY ENQUIRIES FROM FOREIGN COUNTRIES

By A. F. Zimmerman

Vice-President, Zimmerman-Reliance, Limited, Hamilton

We find that production has been seriously curtailed owing to the shortage of labor; the class of labor we are employing to-day not being as efficient or industrious as heretofore. Up to the present we have been able to secure enough raw material to keep our plants running, but we are now facing a shortage owing to complicated conditions.

All classes of knit goods are in demand at the present time. Ruling prices are naturally considerably higher and likely to go higher unless something occurs to halt the commodity markets all over the world. We are receiving a great number of enquiries from our agents in foreign countries, and this business could be very largely extended were we in a position to produce the goods in addition to taking care of our domestic market. Unfortunately we cannot do this, and have to consequently turn down the foreign trade.

We cannot help but feel that the demand is likely to continue for some considerable time owing to the world shortage of goods. When this shortage has been made up, we believe there will be a serious depression in the textile industry. We have no plans at the present time for factory enlargement, although we might say that we built a third floor over the whole of our plant last summer, which will take care of our needs for some time to come.

DEMAND TO CONTINUE THROUGH 1920

By H. G. Smith

Secretary-Treasurer, Mercury Mills Limited, Hamilton

In the matter of skilled labor supply, manufacturing conditions are somewhat better than during the war period, but the improvement is very slight. As regards raw materials, if anything these conditions are worse than during the war. Machinery is higher priced than ever before, and in some lines deliveries are from one to two years away. We do not believe production has increased to any extent, at least not worth mentioning. Possibly the output is about the same as a year ago.

As regards underwear, the tendencies as to kind and quality now in demand are hardly as pronounced as in the case of hosiery, but generally speaking, the better goods are wanted. Prices are fully as high as at any time in the past few years, and unquestionably will be higher. Cotton is to-day at a terrific price, and fine wools especially have been going upward at an alarming rate. The demand for finished goods is brisk.

There is a substantial export demand, and if Canadian manufacturers could get enough labor a very big business could be done. In our opinion some of the export business could be made more or less permanent if manufacturers will give careful attention to the requirements of their foreign customers.

So far as we can see, the demand will continue throughout 1920, and we do not believe in a general sense that production in underwear will be greatly increased. So far as we ourselves are concerned, we have just about completed a substantial enlargement to our factory, and we expect to be moving machinery into this new extension by the end of the present week.

DEMAND HAS BEEN FOR BEST GOODS

By I. Bonner

General Manager, Penmans Limited, Paris

During the year 1919, the knit goods trade has passed through most unusual conditions; labor has been scarce—particularly female—and also those skilled in the trade. Raw materials have seen some tremendous advances as, for intance, mercerized yards, advancing from $1.10 per pound for a 2/40's count to $2.80; cashmere yarns from $2.90 per pound for 2/40's count to $4., and so on through the whole list of materials such as raw cotton, wool top, noils, etc.

The great question has been to have selling prices keep pace with these advances, and know when one is covered. Furthermore, it has necessitated carrying large stocks, as one could never know whether contracts, as regards delivery, would be carried out by his suppliers, and in many cases where such supplies arrived late, they were, if from the U.S., subject to heavy exchange rates.

Production of knitted goods throughout the country has undoubtedly increased through new enterprises starting and established firms extending, but production per operative is, we believe, smaller than in pre-war days. Compared with a year ago, production, I think, would be about the same per operative.

The outlook for the trade is very difficult to foresee, as many factors enter into the result. It looks, however, as though local and foreign trade will be good just so long as foreign countries are unable to come back to normal production and costs, and, in equal proportion, to their ability to produce and sell abroad, will our business hold good. Many think, however, that the changed conditions as regards wages abroad will be a factor in favor of Canada.

CLOTHING VALUES TREMENDOUSLY INFLATED

By George C. Coppley

Copley, Noyes & Randall, Limited, Hamilton

I would not care to essay a forecast of the clothing business at the present time. Values are so tremendously inflated in Great Britain, the United States and our own market that it seems that a reduction in prices is necessary to put the industry upon a sound and stable basis. In my opinion the governing condition is the law of demand and supply. Consumers are able and willing to pay the higher prices, and while this condition prevails, manufacturers yield reluctantly to the exorbitant demands of labor to keep their machinery going, booked months ahead. A reduced demand seems to me the only road to a deflation in values.

Canada's Industrial Expansion

A Record of Progress

Have Erected Warehouse

McArthur, Irwin, Limited, Montreal, have recently Completed the Erection of a Large Warehouse

Owing to the heavy demand for their products which consist of paints, colors, varnishes, dyestuffs, chemicals, etc., and to the fact that they are compelled to operate their plant at full capacity all the time, McArthur, Irwin, Limited, Montreal, have found it necessary to add an extensive warehouse to their factory at Outremont. The company report that their white lead scored an immediate success after it was placed upon the market and they anticipate that it will not be long before they will be compelled to enlarge the capacity of their plant.

Rails for Roumania

Dominion Steel Corporation Have Received Large Order for Rails from the Roumanian Government

An interesting export order recently received in Canada, is one that has been obtained by the Dominion Steel Corporation from the Government of Roumania. It is for 7,500 tons of rails of a "T" pattern of special section, weighing approximately 67 pounds to the yard. The rail differs very little from the usual A.S.C.E., or other American standard patterns. It is expected that the rolling of these rails will be started in January. As soon as the rolls are ready the rail mill will be started on single shift, and this means that from three to four weeks' work is now in sight for this department.

Branch Factory at Vancouver

Canadian Carbonate Co., Limited, are Adding to Their String of Plants Across Canada

The Canadian Carbonate Co., Limited, who recently started the erection of a branch plant in Hamilton, Ontario, are now about to erect a plant in Vancouver. They have secured property 100 x 120 feet at the corner of 11th Avenue and Yew Street, and will spend about $100,000 in the erection of this plant. The establishment of this branch in British Columbia has been rendered necessary through the increasing demand for the company's product in British Columbia, and also on account of export opportunities. The plant will probably be ready for operation by July 1st. For the present, Alberta business will be taken care of by this branch.

Enlarging Their Factory

Firth Brothers, Limited, Hamilton, will Add Two Storeys to Their Present Factory Building

Announcement is made by Firth Brothers, Limited, Hamilton, manufacturers of clothing, that owing to the immediate need for more space they have decided to put an additional two storeys on to their present factory building. The building was originally built so that these two storeys could be added at any time.

The company have also purchased property immediately at the rear of their present premises with a frontage on Hughson Street of about 150 feet. On this property they propose eventually to erect a modern clothing factory possibly four storeys in height. However, they have not yet decided definitely when they will proceed with this latter development.

Building New Foundry

Dominion Steel Products Company, Limited, of Brantford, Installing 16-Ton Air Furnace

Construction work has been started by the Dominion Steel Products Co., Limited, of Brantford, on the erection of a new foundry building, 100 x 160 feet. This foundry will be equipped with two cupolas; also with a 16-ton capacity air furnace. The latter is being installed for the casting of heavy steel mill rolls, also rolls for rubber-working machinery. It is expected by the management that this foundry, which will have a capacity of about 15,000 tons of castings per annum, will be in operation in about eight weeks.

The company have also purchased, and will shortly install an electric furnace for the smelting of all types of non-ferrous alloys, with a capacity of about 300 tons of castings per annum.

Erected Five New Buildings

Jackson Machines, Limited, Saskatoon, have recently Completed Large Factory Extension

During the past season the plant of Jackson Machines, Limited, manufacturers of sheaf loaders and carriers and threshers, Saskatoon, was enlarged by the addition of five new buildings. These comprised a machine shop, 32 x 108 feet; a wood shop, 56 x 64 feet; a stock room, 56 x 56 feet; and two erecting rooms, 40 x 80 and 72 x 90 feet, respectively. The company are engaged in the manufacture of the Jackson Combination Sheaf Loader and Carrier, and the Jackson Low-down Thresher, two machines which are meeting with much favor among the farmers in Western Canada. In addition to handling their own product, they are also distributors for the Eagle Tractor and the Happy Farmer Tractor, machines manufactured in the United States. Last season the company shipped 75 carloads of its own product and this year they have every prospect for a very largely increased business.

Company Contemplates Addition

Walter Blue & Co., Limited, of Sherbrooke, may Erect Four-Storey Addition to Present Plant

The report that Walter Blue & Co., Limited, manufacturers of clothing, Sherbrooke, Que., were about to extend their plant, is characterized by the management as just a little premature. As yet the directors have not arrived at any definite decision. The matter has, however, been up for discussion and there is the possibility of their putting up a four-storey addition, 60 x 120 feet, to their present plant.

About six months ago, Walter Blue & Co., Limited, purchased the Coaticook Woollen Mills at Coaticook, Quebec, and have during the last six months enlarged and improved them. At the present time, they are manufacturing at these mills a



Shoe Machinery Plant Being Enlarged

View Showing Progress of Construction on Addition, 60x120 feet, which is under Construction by the United Shoe Machinery Co., of Canada, Limited, Montreal

high-grade of pure wool homespun which is being used in their clothing factory, the entire output being utilized. They claim that they are the only clothing manufacturers in Canada operating a woollen mill in conjunction with their clothing business.

Making Important Addition

United Shoe Machinery Co., of Canada, Limited, are Adding to Their Present Buildings at Montreal

The United Shoe Machinery Co., of Canada, Limited, Montreal, are at present erecting a large addition to their present plant. The building is 120 x 60 feet in size, four storeys high, of steel frame and brick construction. It will be heated with forced hot water system, and will be used for the manufacture of shoe machinery. They expect to be ready to occupy the building about the 1st of April.

Welland Plant Acquired

Mead-Morrison Manufacturing Co., of East Boston, Buy Out M. Beatty & Son, Limited

The M. Beatty & Sons, Limited, Welland, manufacturers of dredges, hoisting engines and other contractors' machinery, have been bought out by the Mead-Morrison Manufacturing Co. of East Boston, Mass. It is hardly likely that the plant will be operated by the Boston company direct. A separate Canadian company will be formed for the purpose, details of which will be announced later.

An Expanding Industry

Magnet Metal and Foundry Co., Limited, Winnipeg, Adopt Sound Development Policy

An increase in their capital of $50,000 will enable the Magnet Metal & Foundry Co., Limited, who were organized in Winnipeg in 1918, to make improvements to their plant and extend the field of their operations. The company own a 2½ acre site in Elmwood, with a 600 foot spur track. Their plant consists of foundry, blacksmith shop, machine and assembly and pattern shop in solid brick, and office and storage buildings in metal clad, laid out to produce economically their lines of farmers' hardware and light implements. They have secured exclusive Canadian rights on several implements and tools, which ensures them against foreign competition. They also make a complete line of farmers' hardware, and by adopting a policy of selecting those lines which have their principal material component cast iron, they can translate the waste material of the western farm into finished goods with a shorter round haul than their eastern or southern competitors. They manufacture a limited number of lines and sell to the wholesale trade only.

The president of the company is Hugh R. Eade, and associated with him on the directorate are A. E. Donovan, manager Creshman Motor Works of Canada, Limited; W. R. Ingram, Swift Canadian Co., Limited; E. G. Powell, Kelly-Powell, Limited; Albert Hoiland, president Hoiland Mfg. Co., Fargo, N.D.; Hamilton Echlin, Echlin Mfg. Co., etc.

New Industry for Waterloo

Forsyth Productions, Limited, Start Manufacture of Men's Wearing Apparel

Operations recently commenced in the new plant erected at Waterloo, Ont., by Forsyth Productions, Limited, a new company, with an authorized capital of $200,000, formed in Kitchener for the purpose of manufacturing varieties of men's wearing apparel. The company purchased a lot, 135 x 135 feet, located on the city square in Waterloo, and erected a building 125 x 30 feet, two storeys high. About fifty hands are employed. The company are an off-shoot of John Forsyth, Limited, Kitchener.

Establishing Canadian Plant

Bovril, Limited, the British Food Specialists, will Manufacture in Canada

One of the most interesting announcements of the present month, is that Bovril, Limited, the famous British food specialists, will erect a manufacturing plant in Montreal. They have secured from the city a plot of land containing 25,000 square feet and located in a remarkably fine high position at the north end of the city. Plans are completed for the erection on this property of a unit on the lines of the company's factory in England. The area of the ground will admit of the erection of other units as extra accommodation may be required.

The building will be fireproof and of excellent appearance, while every possible arrangement will be made to ensure its hygienic character. It will consist of five floors, each containing 5,000 square feet of space and will be built of steel and concrete, faced with Don Valley buff bricks and Indiana limestone. The walls and columns will be faced to

a height of five feet with white enamelled bricks above which the walls will be painted with white enamel. It is estimated that, excluding the manufacturing plant itself, the factory will cost $275,000. It will be completed either late in May or early in June of the present year.

Adding Another Storey

The National Acme Co., Montreal, Are Extending Their Plant and Increasing Output

An increase of approximately 50 per cent. in output will be secured by the National Acme Co., Montreal, manufacturers of milled screws, nuts, bolts and special parts, through the addition of another storey to their main building. This will give approximately 23,650 square feet of additional space. The enlargement has been necessitated by the increased volume of business being booked, particularly from automobile manufacturers. The work will be completed early in the year, and from 75 to 100 additional hands will be employed.

Plant Nearly Ready

Factory at Windsor of Champion Spark Plug Co. of Canada, Limited, Will Soon be Producing

The new plant of the Champion Spark Plug Co. of Canada, Ltd., located at Windsor, Ontario, is rapidly nearing completion, according to advices received from Arthur J. Hayes, Canadian sales manager of the Spark Plug concern. He states that by the first of the year the factory will be in production and that henceforth all Champion spark plugs used in Canada and the British possessions will be manufactured at and shipped from Windsor.

The building, when finished, will be the largest and most completely equipped spark plug factory in the Dominion. It will contain 15,840 square feet of floor space, and will have a production capacity of approximately 35,000 spark plugs per day. Up to the present time twelve automatic machines have been installed and it is planned to increase this number to thirty-five or forty as quickly as possible.

Taking Over Stratford Factory

New Company Formed for the Purpose of Manufacturing Electric Heating and Cooking Devices

At the first of the year the maufacturing department of heating devices of the Canadian General Electric Co., Limited, and the organizations of the Canadian Hotpoint Electric Heating Co., Limited, and the Hughes Electric Heating Co., all of Toronto, were consolidated to form a new company known as the Canadian Edison Appliance Co., Limited. This new organization will continue to manufacture the complete line of heating and cooking devices that were manufactured in the past by the above-named companies. Mr. J. R. Richardson is the managing director, Mr. F. M. Dusenberry sales manager, Mr. F. R. Goldsmith works manager, Mr. R. S. Morgan secretary and treasurer, and Mr. W. P. Young purchasing agent, all of Toronto.

The company have taken over the old Mooney Biscuit Factory at Stratford, which was recently purchased by the Canadian General Electric Co., and they will shortly commence operations in this plant. At the outset the company will employ approximately 200 hands, and the number of hands to be employed subsequently will depend entirely on the way in which business develops.

Will Make Tire Fabric

Large Factory Being Built by Manhasset Manufacturing Co., of Providence, at St. Hyacinthe

Among the latest United States companies to locate a branch plant in Canada are the Manhasset Manufacturing Co., Providence, R.I., who have formed the Canadian Manhasset Cotton Co., Limited, and are building a mill for manufacturing tire fabric at St. Hyacinthe, P.Q. The mill is of brick, 200 x 110 feet, four storeys, in which 20,000 spindles and necessary twisters and looms will be installed. In the spring a weave shed, 200 x 150 feet, two storeys high, will be erected. The company expect to start operating the first half of the mill on June 1, and the second half about October 1. The number of hands to be employed in the complete unit will be about 450. The investment amounts to $1,450,000.

New Furniture Company

Wiarton Furniture Company, Limited, Take Over the Canada Casket Factory at Wiarton, Ontario

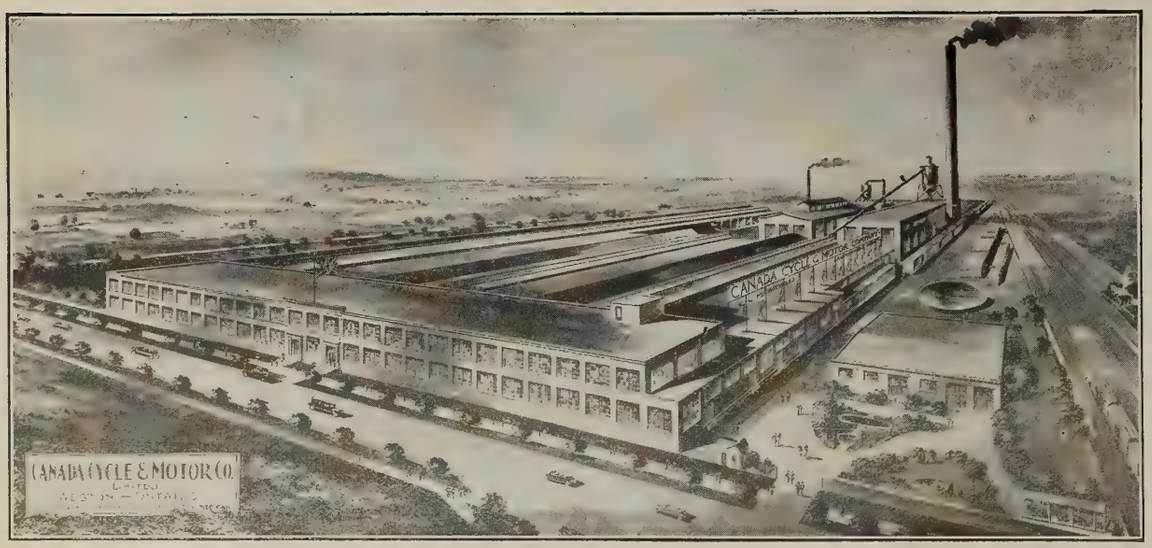
A company known as the Wiarton Furniture Co., Limited, in which several local business men are interested, has been formed to take over the Canada Casket Factory in Wiarton, which has been lying idle for the past two years. The plant will be converted into a furniture factory, and the company will manufacture a medium line of bedroom and dining-room sets. They are adding $12,000 worth of new machinery and doubling the capacity of the dry kiln. Under agreement with the town of Wiarton, they will have to employ twenty-five skilled workmen in the first year, thirty-five the second year, and fifty or more after that for eight years.

The plant was first started in a small way in 1882 by Folk, Marlock, & Wegenast, manufacturers of furniture; in 1888 it was taken over by Siemon & Hill; in 1895 Mr. Hill retired, and sold out his interest to Siemon Brothers; in 1901 Siemon Brothers sold out to the Canada Furniture Manufac-



Putting a Second Storey on Montreal Plant

Recent view of the plant of the National Acme Co., Montreal, showing progress on construction of upper storey, giving 23,650 square feet of additional space



Bicycle Factory Enlargement

Plant of the Canada Cycle & Motor Co., Limited, Weston, as it looks with recent addition of 15,000 square feet of floor space

turers Limited; and in 1906 Siemon Brothers came into possession of the plant again and operated it as a flooring factory for a short time, later turning it into a casket factory under the name of the Canada Casket Factory. Last year the town of Wiarton came into possession of the plant, and it was from the town that the present company secured it.

The factory has been enlarged several times by its different proprietors, and now has a floor space of 38,000 square feet. It is a four-storey building, and has a 125 horse power boiler and engine, and a large installation of woodworking machinery.

Will Erect Ice Cream Plant

Willard's Chocolates, Limited, Branching Out in a New Line of Industry

A new development is being undertaken by Willard's Chocolates, Limited, Toronto, in the erection of a large plant for the manufacture of ice cream. Property, 120 x 192 feet, has been secured at the corner of Manning Avenue and Dupont Street, and work has started on a building, 80 x 166 feet, of mill construction, four storeys and basement. The entire building will be occupied by the Ice Cream Division, and it is expected that the plant will be fully equipped for the production of 100,000 ice cream bricks per day by the month of March. It will be, it is claimed, the most modern and up-to-date plant of its kind in America. About 200 hands will be employed in production and distribution, and the product will be marketed in Toronto, Ontario and part of Quebec. The plant has its own railway siding, and shipments will be made direct. About a quarter of a million dollars will be expended on the building and equipment. The company have acquired a modern creamery in Picton, from which the milk used in the process will be secured.

New British Columbia Industries

Three Recently Incorporated Companies Propose to Establish Plants in Province

The Clayburn Company, brick and tile manufacturers, of Clayburn, B.C., with head office in Vancouver, have recently acquired the Kilgard Brick Works near Clayburn, and it is expected that the Clayburn Co. will have the new plant in operation very shortly. The brick produced by the Clayburn Co. has a wide market, being shipped south as far as Oregon, and east as far as Winnipeg, and the existing plant is now kept busy turning out face brick and fire brick as well as retorts

It is reported that Messrs. Gillan and Edgett, of Vancouver, are contemplating the erection of a fruit cannery and box factory in the Port Haney District in the Lower Fraser Valley. It is understood that this plant will be in operation in time to handle part of the 1920 fruit crop.

One of the directors of the firm of Thomas Summerson & Co., Ltd., of Darlington, England, was recently in British Columbia making investigations with a view to establishing a series of electric furnaces to smelt iron ore. This gentleman stated that his company had unlimited capital to back their undertaking, and providing suitable offers were made, they were prepared to start operations at once.

Mr. W. S. Burley, manager of the British Columbia Fir and Cedar Lumber Co., Vancouver, whose plant was recently destroyed by fire, has announced the intention of his company to immediately rebuild. It is expected that the new plant when completed will have a capacity of about 75,000 feet per day.

The Coast Box Company of Vancouver have in hand, with the adjoining municipality of Point Grey, negotiations for a site for the erection of a $12,000 box shook factory, it being the intention of that company to shortly branch out extensively in the export business.

Plans are completed and machinery now en route from Great Britain for the erection of a wire rope factory on Granville Island, Vancouver, for the Britannia Wire Rope Company. The new factory is to be built by British capital assisted by Mr. Robert Gibson, of Vancouver. The intention of the company is to care for the needs of the local British Columbia and Alberta markets as well as to enter the export field. Raw materials for this factory will be brought from Great Britain.

Recent British Columbia Developments

Various Industries are Branching Out at Present Time in Coast Province

Among important industries recently incorporated in British Columbia are the following:

Lumber and Pulp Wood of British Columbia, Ltd., with headquarters at 120 Bay Street, Toronto, incorporated for the purpose of manufacturing lumber and cutting pulp wood from valuable timber limits situated in the vicinity of Ahbau Lake and Willow River in the Cariboo District of British Columbia.

The New Westminster Furniture Manufacturing Co., with head office and factory in New Westminster. This company intends to use native hardwoods, notably maple and birch, for the making of cheaper grades of furniture. It is estimated that at present only 5 per cent. of the furniture sold in British Columbia is manufactured here, and this company should find a ready market for its product.

Western Toy and Manufacturing Co., Ltd., with headquarters at Vancouver. The company is composed of returned soldiers, and it is proposed to run same on a co-operative basis.

Started at First of Year

New Company for Manufacturing Gimps, Bindings and Weltings, etc. Operates at Walkerville

The Hills-Jansen Co., Limited, who recently took over the plant and property of the Dale Iron Works on Walker Road, Walkerville, started operations on January 1st with a working force of 25 employees. They are engaging in the manufacture of gimps, bindings, weltings and trimming of artificial leather for the automobile and furniture trades; also door liner boards and other flat artificial leather-covered pieces. A power sewing machine department has been installed which can take on contract work of any nature. The plant has a floor area of 6,000 square feet at present, but the company expect this summer to enlarge the premises.

The industry is an offshoot of the Jansen Mfg. Co. of Detroit, but is strictly a Canadian corporation, operated entirely distinctly from the parent concern. Mr. W. B. Jansen, president of the Jansen Mfg. Co., is president; Mr. S. W. Jansen, secretary-treasurer of the Detroit company, is secretary-treasurer, and Mr. C. A. Hills, who is factory manager of the Jansen Mfg. Co., is vice-president and general manager.

Dunlop Rubber's Expansion

Million and a half Appropriated for Erection of Another Factory in Toronto

As indicating the growth of the automobile tire industry in Canada and the extent to which the Dunlop Tire & Rubber Goods Co., Limited, are participating in this business, the announcement that this company have set aside an appropriation of $1,500,000 for building and equipping another factory in Toronto is significant. The new building, which is now well under way and being rushed to completion, is 400 feet long, 80 feet wide, with four storeys and basement. It faces on three streets — Queen, Booth and Natalie. This latest factory will be devoted especially to the manufacture of Dunlop Cord Tires — "Traction" and "Ribbed" — the success of the present Dunlop Cord Tire having been so instantaneous.

The Dunlop rubber interests are not confining their programme of expansion to Canada. A new company, Dunlop America, Limited, to operate in the United States, has been launched. This new company will operate on a huge scale.

The Dunlop Tire & Rubber Goods Co., Limited, with headquarters in Toronto and branches in the fourteen leading cities of Canada, have working arrangements, not only with Dunlop in England, but Dunlop in France, Japan, etc. These arrangements constitute interchange of formulæ, scientific research, processes and methods. Such arrangements will now likewise be made betwen Dunlop in Canada and Dunlop in the United States.

Another for Peterborough

Third Branch Plant of United States Industry to Locat Last Year in this City

Announcement is made that the Canadian Aladdin Company, the Canadian branch of the Aladdin Company, Bay City, Mich., have arranged with the city of Peterborough for a site of about six acres on which to erect a factory and for a fixed assessment of $5,000 for ten years. The company will erect a building 100 x 200 feet and invest $70,000 in building and plant. The factory is to be erected, equipped and in operation before September 1. At the outset the company expect to employ from 30 to 40 men, but fully expect expansion and have an option on an adjoining five or six acres. They manufacture ready-cut houses, and at the parent plant employ 500 men. This was the third company to decide to locate in Peterborough in 1919, the others being the Western Clock Co. of La Salle, Ind., and the Nashua Gummed & Coated Paper Co. of Nashua, N.H.

New Glove Industry

Two Waterloo Men Form Company to Manufacture Workingmen's Gloves and Mitts

Under the name of the Quality Glove Co., Messrs. G. S. Raymond and H. H. Becker have established a new industry in Waterloo, Ont. They have leased the Hohmeier Block on King Street and commenced on December 15, the manufacture of workingmen's gloves and mittens. Starting with five or six hands, they hope to be in a position to increase this number by fall. The building occupied is large enough to admit of considerable expansion.



As the New Canadian Dunlop Factories are Going to Look when the $1,500,000 Addition is Completed in the Spring of 1920

Freight Claims and Their Collection

Recording the Evidence of Damage or Loss of Goods in Transit—Why All Case or Package Goods Should be Opened Promptly—Time Limit in Which to File Claims, etc.

By F. R. ALLWARD

Transportation Department, Canadian Manufacturers Association

Second Article

AT stations where it is customary for the railways to send a notice of arrival to the consignee, through the mails, great care should be exercised to ensure that none go astray after delivery by the post office. Controversies sometimes arise as to whether or not the carrier has complied with the regulations in sending out this notice, and the receiver of freight should be in a position to prove from his records the exact date same was received; or if not received, then proof that it was not delivered by the post office. This precaution is important for the following reasons:

(1) Heavy storage or demurrage charges assessed if goods not removed within 48 hours after notice of arrival; or 72 hours in the case of bonded freight.
(2) Carrier only liable as warehousemen for goods not removed within the free time limit.
(3) Bonded goods will be sold by the Customs Department at public auction, if entry not made and duty paid within one month from arrival.

The importance of the arrival notice applies principally to L.C.L. shipments and carload lots delivered from public team tracks. Consignees served by private sidings or industrial interchange tracks must keep a close check of cars arriving, as delivery of such shipments in the usual manner is deemed due and sufficient notice of arrival thereof.

Receiving Freight

Less than Carload.—At many of the principal stations throughout Canada the railways have appointed cartage companies to act as their agents in picking up and delivering L.C.L. shipments, and the employees of the said cartage companies are empowered to sign bills of lading and to accept receipts for goods delivered. Where such an arrangement is in operation it is incumbent on the consignee's receiving clerk to examine carefully every shipment, for the purpose of detecting any shortage or damage before giving the teamster a receipt. Should a shortage be found, or if any of the packages bear indications of damage, such as a broken case, a rattling sound indicating broken parts, leakage from a liquid container, etc., a careful notation of the same should be made on the face of the No. 2 freight receipt (in ink) before signing. He should also make the same notation on the No. 3 freight bill, and request the teamster to sign it. This the cartage company's representative may refuse to do, as explicit instructions have been issued in some instances prohibiting this practice.

Railway officials take the view that notation of damage or shortage on the No. 2 freight receipt fully protects the consignee, and that the local freight agent fully complies with the regulations by filling out an "Over, Short and Damage" report, a copy of which is mailed to the freight claim agent.

If the consignee is required to arrange for his own cartage service, the teamster should be instructed to take the same precautions outlined above, when accepting shipments from the railway freight sheds, and make a careful report of the exact facts to the receiving clerk on returning with the goods.

Carload.—The railways will furnish a checker for carload freight delivered from public team tracks, but not for private siding delivery. Extra precautions, therefore, have to be taken by the consignee in unloading freight direct from car to warehouse. A record of the numbers on the car seals must be taken and the seal fastenings examined to determine whether or not they have been tampered with in transit. It is also advisable to take note of the condition of the doors, hinges, etc., as it has been proved in some instances that goods can be extracted from the car without tampering with the seals.

If the contents check short, or if some of the goods are found in bad order, it is quite necessary to immediately notify the local freight office by telephone, in order that the inspector may have an opportunity of verifying the damage or shortage, as the case may be.

In every instance a telephone message should be confirmed by letter, as it may become necessary to finish unpacking or to use some of the goods if the inspector does not call within a reasonable period.

It every case it is very important that the receiving clerk should make a careful record in writing of all the facts relating to the particular shipment involved, in order that he may be prepared (if necessary) to make a sworn statement at some later date in support of claim.

Receiving Record.—Most progressive houses now have a printed form for recording the receipt of all material, and in so far as freight and express shipments are concerned, too great care cannot be exercised by the receiving clerk in reporting all particulars to the office. The essential facts should include:

Name of shipper; point of origin.
Name of railway; inward pro number.
Car number and seal numbers (in the case of a carload shipment).
Description of goods; number of packages.
Particulars of shortage (if any).
Nature of damage (if any),

and any other information that may be deemed relevant or necessary. If the form furnished does not provide sufficient space to include all the information, a separate report can be made. Whatever method is followed, the records should be sufficiently broad in scope to enable the receiving clerk to make a sworn statement at some later date without depending on his memory for the essential facts.

Concealed Loss or Damage

The terms "concealed loss" and "concealed damage" indicate that the loss or damage is of such a nature that it is not evident when the shipment is delivered by the railway to the consignee. For example, a shipment of glassware is received in apparent good order, so far as the ex-

ternal appearance of the packages is concerned, but on opening the cases or barrels the entire contents may be found broken.

In another case, a consignment of rubber footwear packed in cases may bear every indication of good order when delivery is accepted by the consignee and yet, when unpacked, several pairs of rubbers may be found short in every case.

In view of the opportunity for fraud in claims for concealed damage or loss, it is easy to understand the reluctance shown by claim agents in allowing such claims, unless substantiated beyond reasonable doubt, and it is of the utmost importance that they be supported by the most complete and convincing evidence.

In the very nature of the case it is exceedingly difficult for a railway to verify such alleged damage or losses. Therefore claims must be supported by clear and detailed affidavits of the shipper as to the condition of the goods and packages shipped, and of the contents of the various packages if the shipment consists of a number of separate articles, also by affidavits of any parties who handled the shipment after it left the shipper and before delivery to the railway. If from the nature of the shipment there could have been any opportunity for pilfering, tampering or damage while in the custody of private draymen at either end, affidavits should be secured from them and included in the claim, to the effect that the packages were not tampered with while in their possession.

Affidavit Should Be Clear

The affidavit of the parties receiving the goods should be clear and explicit as to the contents of the packages when opened, and also as to the fact that there was no opportunity for tampering, pilfering or damage during the period between the delivery by the carrier and the time when the packages were opened and when the loss or damage was discovered.

Necessity for prompt unpacking.—It will be readily perceived from the above remarks that a consignee can in no instance be certain that goods have not been tampered with or damaged in transit, and if he desires to avoid any controversy with the railway in regard to the possibility of damage or pilferage after delivery, all case or package goods should be unpacked as promptly as possible after receipt. If the contents are then found not to be in order he should notify the local freight office immediately, requesting that an inspector be sent to his place of business for the purpose of verifying his report. In no case should the receiver of freight neglect to confirm a telephone message of this nature by letter, as the inspector may be engaged elsewhere at the time and the party receiving the message is quite likely to forget about it. This precaution is important, and if the inspector does not call at the consignee's place of business within 48 hours he should again telephone the local freight office and ask permission to speak personally to the local freight agent. If this procedure is followed prompt action will in all probability be obtained, as the agent will usually prove to be a man who is anxious to co-operate with the patrons of his company.

The precautions outlined above apply with double force to imported goods, for the following reasons:

Bonded goods.—Section 73 of the Canada Customs Act specifically provides that claim for refund of duties paid on damaged goods must be made within fourteen days from the date of arrival, or three days in the case of glass. This claim must be made by the consignee or the party paying the duty, and it should be distinctly understood that railway claim agents will not entertain a claim in which duty is included. The Department of Customs, on the other hand, will also refuse to entertain the claim for refund unless a customs inspector has an opportunity to examine the goods within the time limit outlined above.

Damage to Machinery, etc.

Appraising damage.—Machinery while in transit is frequently damaged in such a way that it is impossible to repair it by the substitution of new parts. While it may be possible for a machine to be put in shape for operation by welding, etc., yet its usefulness may be permanently impaired. The loss involved is usually considerable, and if the consignee and the railway inspector are unable to agree on a figure, a third party should be called in to make an appraisal. The appraiser must of necessity be a man thoroughly conversant with machinery, or whatever class of goods may be involved, and when he has made an estimate he should be requested to sign a sworn statement setting forth the nature of the damage, extent of depreciation in value, and other relevant facts.

The services of an appraiser can also be used to advantage where it has not been possible to arrange for the visit of an inspector, especially if the amount involved is considerable.

Salvage.—It is, generally speaking, the duty of the consignee to take delivery of a shipment even though damaged, and afterwards present a claim against the railway. Unless the damage is of such a nature as to completely destroy the value of the entire consignment, he should receive the goods and dispose of them to the best advantage. The measure of damage he is entitled to recover will be the difference between the amount he would have realized had the goods not been damaged and the amount actually realized.

Preparing and Filing Claim

If the procedure outlined above has been carried out, the claimant has now all the documents and information together and is ready to prepare his claim.

Standard form for presentation of claims.—In the first article published in INDUSTRIAL CANADA for December, a list of the documents required in support of a claim was outlined briefly. Many shippers and receivers of freight will be interested to learn that the principal railways in Canada have adopted a standard form for the presentation of loss and damage claims, also one for overcharge, and copies may be obtained from any local freight agent. The use of these forms is not compulsory, but undoubtedly they simplify the work of the claim agent and thus enable him to arrange settlement more promptly. However, the use of any form designed to meet the needs of any particular filing system will prove equally acceptable to the claim agents, provided provision is made for furnishing all the essential facts.

Amount of claim.—The amount which can be recovered by claim for loss, damage or shortage depends partly on the circumstances governing the loss, and partly on the conditions of the bill of lading under which the shipment was made.

Where claim is filed to recover the total value of a consignment lost in transit, or where the goods are so badly damaged as to destroy the value of the entire consignment, the amount of the claim should be limited to the market value at time and place of shipment, plus the freight charges if prepaid. A claim should not be filed for more than this amount because it will be declined and cannot be enforced.

The above provision does not apply where, irrespective of the actual value of the shipment, the shipper has agreed with the railway that, for the purpose of obtaining a lower rate of transportation, the value of the shipment shall be

limited to a certain amount—usually less than the invoice price. This is termed "*Released Valuation*," and in the event of loss the claimant cannot properly ask for anything more than the amount agreed upon.

The considerations outlined above governing the amount which the claimant is entitled to recover apply also to partial loss or partial damage, except where it is necessary to dispose of the goods for what they will bring in the open market or where the damage is of such a nature as to permanently impair the value or the use of the goods. These exceptions are treated separately under the headings "*Salvage*" and "*Appraising Damage*."

It is of great importance where settlement is requested on the basis of the invoice value that the items covering the particular portions of the shipment which are short or damaged should be specifically set forth in the itemized bill rendered. The item for return of freight charges should be based on the proportion of the freight charges covering the portion of the shipment lost or damaged and for which claim if filed.

Duty.—Unless specifically provided for in the conditions of carriage on the back of the bill of lading, the amount of duty should not be included. As indicated under the heading "*Receiving Freight*," a claim for refund of duty may be filed with the Customs Department, provided same is presented within fourteen days of the arrival of the shipment; or in the case of glass, three days. This privilege should always be taken advantage of as, under the terms of carriage governing shipments from the United States, duty is not recoverable from the railways.

The Filing of Claims

Filing.—As previously outlined, claim may be served on the local freight agent or forwarded direct by mail to the freight claim agent. Whatever method is followed, copies of all documents should be retained by the claimant, and when presenting a claim to the railway same should be accompanied by a letter. This precaution is very necessary, as original papers often go astray and it is then necessary for the claimant to prepare duplicates.

Time limit for filing.—Under the terms of the standard bill of lading, notice of loss or damage must be made in writing to the carrier at the point of delivery, or to the carrier at the point of origin, within four months after delivery of the goods (six months on shipments from the United States). Should the claimant find it impossible to get all the necessary documents together within that period, it would be well to notify the railway by letter of his intention to enter claim at some later date.

Shipments lost or delayed.—In the case of non-delivery the consignor or consignee is required to notify the carrier at point of origin or destination within four months (six months on shipments from the United States), after reasonable time for delivery has elapsed. In some instances the owner of a consignment of goods may have engaged with the carrier in an active investigation to determine the whereabouts of the shipment, and in the belief that same will eventually turn up, he neglects to enter claim until it is too late. It is therefore considered expedient by some experienced shippers (when requesting the railways to trace a shipment) to add a clause to either letter or printed form, reading substantially as follows:

> "*This request is notification to you that claim will be instituted if goods are not delivered.*"

The use of the above, or a similar clause, fully complies with the bill of lading terms and enables the owner of the goods to file a claim within a reasonable period thereafter.

Use of telephone not reliable.—Where a claimant follows the practice of submitting claim to the local freight agent, he should discourage the use of the telephone by his staff in negotiating with the local freight office in regard to settlement, unless information is desired in a hurry, in which event conversation should be immediately confirmed by letter.

If the local freight agent is unable to advise definitely prospects of settlement within a reasonable period, he should be requested to furnish particulars of correspondence, claim reference number, etc., in order that the matter may be taken up direct with the claim agent by correspondence.

Follow-up System Needed

A follow-up system should be adopted for negotiating settlement, and a letter addressed to the claim agent should be despatched at regular intervals. If a separate file is kept for each claim and copies of all correspondence attached thereto, it will simplify the investigation and thus avoid the matter being overlooked.

Reasonable time for settlement.—There is a great diversity of opinion in regard to what constitutes a reasonable period in which a claim can be investigated and an adjustment made with the claimant. This is due principally to the fact that the same method cannot be followed in investigating any two claims, and it will be readily understood that a claim covering damage to a shipment handled by two or more lines will take a greater length of time to investigate than one covering damage to a shipment handled by only one line.

There are many other conditions which govern the length of time involved in investigating a claim, but it is not possible within the scope of this series to cover the entire field. It is therefore a matter for the claimant to determine from the known conditions affecting any particular claim what constitutes a reasonable period within which settlement should be obtained; but in every instance the investigation and negotiation with the claim agent should be kept alive.

Interest on over-charge claims.—The conditions governing the investigation of claims for loss or damage do not apply to claims for overcharge, and if the claimant furnishes the railway with all particulars and tariff authority for the rate claimed, settlement should be obtained within a period of thirty days. It is, unfortunately, true that even claims of this nature are not settled promptly, and if the amount involved is large it is expedient for the claimant to have inserted in his claim the following clause, or one similar:

> "*Interest is demanded on this claim at time of settlement for elapsed time in excess of thirty (30) days from date of claim, at the rate of six (6) per cent.*"

If this suggestion is complied with, the claimant can compel the carrier to pay interest on all overdue claims covering freight charges collected in error.

Suing the Carrier

Suing the carrier. It is the opinion of authorities on railway law that a freight claim should not be taken to the courts for collection until all other methods of negotiating settlement have been exhausted, and with this view the majority of claimants are in accord. The expenses incurred for legal fees, etc., are usually considerable; but if the claimant is unable to obtain reimbursement within a reasonable period and is of the opinion that he has a *bona fide* claim, he has, of course, the option of suing the carrier. However, before taking this action, members are urged to take the

question up with the Transportation Department of the Canadian Manufacturers' Association, as there are many legal questions involved which determine whether or not the amount claimed can be recovered through the courts.

The main purpose of discussing this phase of freight claim collection is to bring to the attention of the members the law governing shipments originating in the United States. Under the conditions governing standard bill of lading in use in that country, suits for loss, damage or delay shall be instituted *only* within two years and one day after delivery of the property; or in case of failure to make delivery, then within two years and one day after reasonable time for delivery has elapsed.

The legality of this provision has for some time been the subject of discussion in the United States and a test case has been submitted to the Interstate Commerce Commission for a ruling. Until such time, however, as a definite ruling or decision is announced, receivers of freight in this country should be governed accordingly in negotiating settlement of claims. Needless to say, great care must be exercised in preventing all claims of this nature from lapsing, and if there is any indication that the investigation is being unduly delayed by the carriers, steps should be taken to enter suit within the time limit allowed.

A Shipper's Problems

In the February issue of INDUSTRIAL CANADA the problems of the shipper will be discussed. This should prove of particular interest to the manufacturer who has adopted the policy of entering claims on behalf of his client.

Heated Car Service

Case Has Not Yet Come Up in the East but Manufacturers Will Be Advised of Change

The Canadian Freight Association has filed with the Board of Railway Commissioners an application for an increase in the charge for use of heated refrigerator cars from the present 1c. per car per mile—minimum $2.00—to 1½c. per car per mile—minimum $2.00.

At the hearing before the Board of Railway Commissioners in Winnipeg the carriers were able to show that there was an increase in their costs, and in view of the evidence submitted by the railways, representatives of the shippers intimated to the Board that under the circumstances they could offer no objections. The case has not yet come up in the East, but in any event the last order of the Board dealing with this matter will have to be rescinded before the railways can make an increased charge.

Manufacturers who are interested in this service will be advised of the increase proposed.

Track Scale Weight Allowances

No Order Yet Issued by the Board of Railway Commissioners Following Judgment of September 9

The Board of Railway Commissioners issued a judgment on September 9th, 1919, dealing with the question of track scale weight allowances, evidence in connection with which was heard in 1911. No order has as yet been issued by the Board, but as a matter of information it might be stated that the maximum allowance for dunnage is set at 650 lbs. per car. This maximum is to apply on agricultural implements, machinery, stoves, street cars, and vehicles; also such other articles as may be shown from time to time to require dunnage protection. The tolerance allowed for variation in tare, due to accumulation of snow, ice, etc., is to be 1 per cent. of the weight shown on the bill of lading, with a minimum of 500 lbs. and will apply on all carload freight including coal and coke, except that when ashes, clay, gravel, sand, etc., are loaded in open cars, the minimum allowance for tolerance will be 1,000 lbs.

Cancel Tariffs

Stop-off Arrangements on Hay, Potatoes and Grain, to be Cancelled on February 1

The Canadian Freight Association have announced that—effective February 1, 1920,—tariffs providing stop-off arrangements on hay, potatoes and grain products at Montreal and Toronto will be cancelled.

It is pointed out, however, that this will not affect the milling-in-transit of grain, or the dressing, sawing, kiln-drying or sorting-in-transit of lumber.

Marking Express Shipments

When Returning Goods to Department Stores and Factories they Should be Properly Marked

Departmental stores and manufacturing concerns have been experiencing great difficutly in determining the name of the shipper of certain parcels returned to them for exchange or repairs. The Express Traffic Association of Canada have accordingly issued a circular, which will be given wide distribution, calling upon both their agents and shippers to see that any such parcels bear the name and address of the shipper. These marks should appear on the outside of the package, and the same information, if possible, should be placed inside the package in case the outside mark is lost or destroyed.

Members of the C.M.A. are requested to endeavour to carry out these instructions..

Cartage Rates

More Articles Added to the List of Exceptions in the Carriers' Cartage Tariff

The carriers in Eastern Canada have added to their list of exceptions in the cartage tariff the following articles: Electric cooking appliances and electric heaters. This change will take effect on January 15, 1920. At the present time such articles will move at the regular cartage charges, whereas after the change becomes effective they will be charged in accordance with the regulations of the cartage companies at different points. The change will, of course, mean an increase in the rates, as all articles in the list of exceptions are carried at higher rates than the regular cartage charges.

Correction.

On page 74 of the September issue of INDUSTRIAL CANADA cartage rates were shown applying at the different cartage points in Eastern Canada. Through a typographical error the new less-than-carload rate shown opposite Windsor and Walkerville appeared as 5c., whereas the correct rate is 5½c.

Canadian Court Rules on F.O.B.

Defines Meaning of this Term in Decision Handed Down in Kingston, Ontario

A decision of interest to manufacturers and exporters was recently rendered by a Canadian court. It related to the commercial expression "f.o.b." and made a ruling as to the significance of the term. The court held that the term "free

on board" means that the seller, at his expense, places the goods on the car or vessel which is to carry them from the point specified, and that the buyer takes the risk onwards; at the same time the goods must, at destination, be in conformity with the conditions of sale or they may be legally rejected. Further, it is necessary to distinguish delivery from acceptance; for, said the court:

"The carrier is the agent of the purchaser, but his mandate is limited to the transportation of the goods. The question to decide is whether it was the thing sold that was carried from the point of shipment. If the vendor has correctly delivered the thing sold, the buyer becomes the proprietor immediately. If he delivers something else—for instance, if he has sold goods of first quality and delivers goods of second quality—there is no delivery of the thing sold. The buyer can refuse them only when they arrive at their destination.

New European Service

Monthly Service Inaugurated between St. John and Norway, Sweden and Denmark

The Canadian Pacific Ocean Services, Limited, who are acting as agents for the Norwegian American Line, announce that a monthly service has been inaugurated from West St. John to parts in Denmark, Norway and Sweden. The first sailing will be the S.S. *Drammensfjord* about January 5th, to be followed by the S.S. *Ranenfjord* early in February. This service has been established in order to encourage development of trade between Canada and these ports.

From information which the Transportation Department has recently received from Mr. C. J. Sontum, Canadian Commercial Agent at Christiania, it would appear that there is an opportunity of securing business in the following lines: Boots and shoes, clothing, chocolates, apples, plums and dried and canned fruit, cheese, bacon, wheat, canned and chilled meats. It is hoped that any members who are in a position to do any business in these commodities will endeavor to support this service.

The Department is also advised by Mr. E. N. Todd, General Foreign Freight Agent of the Canadian Pacific Railway, that he has been advised by the president and chairman of the Norwegian American Line, that the Import and Export Agents' Association of Christiania, Norway, are a very reliable and desirable firm for Canadian houses to use.

Steamship Sailings

Ships Scheduled to Sail in the Near Future from Atlantic Ports

Portland to Liverpool. 1920

Rimouski ..... White Star-Dominion Line.... Ab't Jan. 27
Canada ..... White Star-Dominion Line .... Ab't Feb. 13

Portland to London.

Ardgoil ..... Cunard Line ..... Ab't Jan. 31

Portland to Glasgow.

Saturnia ..... Anchor-Donaldson Line ..... Ab't Jan. 24
Cassandra ..... Anchor-Donaldson Line ..... Abt. Feb. 4

Portland to Avonmouth.

Turcoman ..... Dominion Line ..... Ab't Jan. 31
Cornishman ..... Dominion Line ..... Ab't Feb. 7

Portland to Leith.

Cairnvalona ..... Thomson Line ..... Ab't Feb. 1

West St. John to Liverpool.

Empress of France .. C.P.O.S. Line ..... Ab't Jan. 21

West St. John to Glasgow.

Batsford ..... C.P.O.S. Line ..... Ab't Jan. 16

West St. John to Avonmouth.

Vellavia ..... Cunard Line ..... Ab't Feb. 1

West St. John to Manchester via Halifax.

Manchester Division . Manchester Liners ..... Ab't Jan. 18

West St. John to Antwerp.

Caterino ..... C.P.O.S. Furnese Lines (Furn.) Ab't Jan. 17

West St. John to Havre.

Georgie ..... Compagnie Canadienne Transatlantique ..... Ab't Jan. 17

West St. John to Belfast.

Carrigan Head ..... Head Line ..... Ab't Jan. 20

West St. John to Dublin.

Dunass Head ..... Head Line ..... Ab't Jan. 25

West St. John to Montevideo, Buenos Aires and Rosaria (South America).

Clan Skene ..... Houston Lines ..... Ab't Jan. 30

West St. John to South Africa, Cape Town, Port Elizabeth, East London, Durban and Delagoa Bay.

Jekri ..... Elder Dempster Line ..... Ab't Jan. 30

West St. John to Australasian Ports. Melbourne, Sydney, Auckland, Wellington, Lyttleton, Timaru.

Opawa ..... New Zealand Shipping Co. .... Ab't Jan. 30

St. John to Liverpool.

Canadian Rancher .. Can. Govt. Mer. Marine Ltd. .. Ab't Jan. 22

Halifax to Liverpool.

Canadian Seigneur .. Can. Govt. Mer. Marine Ltd. ... Ab't Feb. 2

Halifax to Glasgow.

Canadian Trapper ... Can. Govt. Mer. Marine Ltd. ... Ab't Jan. 19

Halifax to Barbados, Trinidad and Demerara.

Canadian Gunner ... Can. Govt. Mer. Marine Ltd. ... Ab't Jan. 18

Halifax to Rio de Janeiro, Santos, Brazil and Buenos Aires, Argentine.

Canadian Pioneer ... Can. Govt. Mer. Marine Ltd. ... Ab't Jan. 20

West St. John to Liverpool.

Empress of France .. C.P.O.S. Line ..... Ab't Jan. 21

West St. John to London.

Mendip Range ..... C.P.O.S. Furness Line (Furness) ..... Ab't Jan. 20

West St. John to Manchester.

Manchester Division . Manchester Liners ..... Ab't Jan. 18

West St. John to Havre (France).

Georgia ..... Can. Trans. Atlantic Line .... Ab't Jan. 17

West St. John to Buenos Ayres, Montevideo and Rosario.

Clan Skeene ..... Houston Lines ..... Ab't Jan. 30

St. John to Kingston, Jamaica and Havana, Cuba.

Canadian Warrior .. Can. Govt. Mer. Marine Ltd. ... Ab't Feb. 2

Halifax to Rio de Janeiro, Santos, (Brazil) **Buenos Ayres,** (Argentine).

Canadian Pioneer ... Can. Govt. Mer. Marine Ltd. ... Ab't Jan. 20

Halifax to Barbados, Trinidad and Demerara.

Canadian Gunner ... Can. Govt. Mer. Marine Ltd. ... Ab't Jan. 18

European Traffic

Canadian Express Company Issues Circular Pointing Out Services it Can Render

The Canadian Express Company have issued a circular signed by the president, John Pullen, directing attention to the assistance they are prepared to render in the development of foreign business. The company are equipped to take charge, as agents of the shippers, of the forwarding of goods to their final destinations in the interior from the landing ports of the ocean steamers, including the clearance through customs and the distribution of goods. The company's European organization, with headquarters in London, maintains suitably equipped branches at the large centres, with agencies throughout the continent of Europe, who will extend every convenience and facility to Canadian shippers.

The Royal Bank of Canada recently announced the opening of a branch at Montevideo, Uruguay, with correspondents throughout the country. They will transact a general banking business and special attention will be given to collections.

New Tariff Regulations

Automobile Parts

Rates of Duty to Apply on Parts, Finished and Unfinished, and Auto Accessories

The following articles, when shipped and billed separately for manufacturing purpose or for repair, are dutiable at the rates set out opposite each item:

Description.	Tariff item.
Acetylene tanks (brass)	352
Aluminum castings	354
Ammeters	453
Anti-skid rivets (steel)	454
Automobile covers (tops)	438
Axles	392
Ball bearings	453
Battery box brass, parts	352
Bearings	453
Bells	352
Belts, fan, leather	609
Bent wood work, unfinished	506
Bodies, complete	438
Bodies, steel, unfinished and upholstered	454
Boilers	453
Boiler parts of iron or steel	454
Bonnets	454
Brakes	454
Brake drums	454
Brake band lining, asbestos only	312
Brake band lining, asbestos with brass wires embedded therein	352
Brake band lining, cotton, with brass wires embedded therein	352
Brass castings	352
Brass pipe fittings	352
Carbide	711
Carburetors	352
Castings, rough, according to material	352, 354, 453
Chain repairers, according to material.	
Chain adjusters	454
Chain guards, according to material.	
Chains, non-skid	454
Charging apparatus, electric	453
Chassis	438
Clips and clamps, iron or steel	454
Clocks	368
Clutches, iron or steel	454
Cocks, brass	352
Commutators	453
Cushions, according to material.	
Cyclometers	657
Dashes and fenders, according to material.	
Differential gears	453
Dust shields, according to material.	
Electric auto motors	453
Engine packing, rubber	619
Engine parts, integral, if iron or steel	453
Felt washers and dust rings	567
Foot bellows for horn, leather	613
Forgings	393
Frames, or with engines attached but without axles or springs	454
Fuel level indicator, brass	352
Gasoline auto engines	453
Gasoline engine fittings, brass	352
Gasoline syphon, brass	352
Gasoline tank gauges, brass	352
Gear cases, according to material.	
Gears, differential	453
Gears and pinions, iron or steel, steering	454
Generators, acetylene, brass	352
Grademeters	657
Grease cups, brass	352
Hampers	622
Horns, brass, if not plated	352
Horns, brass, if plated	362
Hose clamps and menders, according to material.	
Housing, axle, according to material.	
Hubs, with sprockets attached	454
Igniters	453
Ignition apparatus	453
Ignition batteries	453
Iron castings, rough	453
Iron castings, finished, if engine parts	453
Iron castings, otherwise	454
Insulators	453
Jacks, according to material.	
Lamps	435
Lamp brackets, according to material.	
Lamp parts, metal	435
Lamp storage batteries	453
Lock nuts, iron or steel	454
Lubricators, according to material.	
Luggage carriers, racks of iron or steel	454
Mats, rubber	619
Moto-meters	657
Mud guards, according to material.	
Mud guard attachments, according to material.	
Mufflers, according to material.	
Odometers	657
Oil cans, brass	352
Oil cups, brass	352
Oil guns, brass	352
Oil hole covers, brass	352
Piston rings	453
Portable electric lights	435
Pressed steel body frames	454
Pressed steel channels and angles	454
Pumps, tire, according to material.	
Pumps, oil, according to material.	
Pumps, water, according to material.	
Pumps, brass, circulation, according to material.	
Pump connections, according to material.	
Pumps, iron or steel, operated by engine	453
Radiators, iron or steel	454
Rims, steel	454
Roller bearings	453
Spark coils	453
Spark gaps	453
Spark plugs	453
Speed indicators	657
Springs, vehicle	392
Sprockets	454
Steel balls	491
Steering apparatus, according to material	
Steering knuckles, according to material.	
Steering wheels, according to material.	
Steering levers, according to material.	
Steering yokes, according to material.	
Steps, according to material.	
Storage batteries	453
Switches, electric	453
Tanks, iron	454
Tanks, copper	352
Tires, rubber	592
Tire protectors and anti-skids, according to material.	
Tire repair kits	592
Tire repair tape	562
Tire repair tools, according to material.	
Tire valves and stems	592
Tool bags	622
Tops	438
Transmission gears	453
Universal joints, according to material.	
Valves, engine, if iron or steel	453
Vaporizers, brass	352
Volt ammeters	453
Volt meters	453
Vulcanizers, according to material.	
Wheels	438
Windows, curtain, according to material.	
Windshields, according to material.	

Customs Rulings

Questions that Have Come Up for Decision Recently Affecting Tariff Interpretation

Garnetted artificial silk thread waste, ruled to be dutiable under item 760.

Road graders (per illustration), ruled to be dutiable under item 453.

Bronze memorial tablets (sample), ruled to be dutiable under item 352.

Until otherwise advised, the following machines, specially adapted for use in the manufacture of woollen textile fabrics, may be entered under tariff item 468:

Shake willow or wool waste duster; duster willow machines; kicker fulling mills; rag dusters; warping machines; wool opener and mixer; soaping and wringing machine; dyeing machines of all kinds; drum spool winders and pressure drum spool winders; yarn reel, with counting motion; dead spindle spooler and bobbin stand; spooling and doubling machines; fearnaught pickers; ring twisters.

The following are considered to be of a class or kind made in Canada:

Galashiels fulling mills; cloth washing machines; card creels.

Mixtures of soda ash and bicarbonate of soda in varying strengths, per sample submitted, declared to be dutiable under tariff item 711.

Under Board of Customs' decision above on combinations of soda ash and bicarbonate of soda, the following materials would be dutiable under tariff item 711: Wyandotte's sanitary cleaner and cleanser, dairyman's cleanser and cleaner, brewer's and bottler's cleaner and cleanser, baker's and confectioner's cleaner and cleanser, butcher's cleaner and cleanser, engineer's cleaner and cleanser, yellow hoop, tanner's soda, textile soda, Rhode's E-Mul-So cleaner, Rhode's cleaner, Wil-

(*Continued on page* 235)

A Review of 1919

An Address Delivered by Sir Edmund Walker, President of the Canadian Bank of Commerce, to the Shareholders of the Bank at the Recent Annual Meeting

We have passed through a year in which the daily surprises have been as perplexing as during the war, and in which the anxieties have been as great, except that sometimes they affected rather the mere happiness of the world than human life itself. War, however, still continues in many countries, and there and elsewhere many have died from lack of food. The war has been won by the most superb co-operation in the attainment of one ideal—the winning of the war. We may lose all that victory seemed to secure by indulgence in countless theories, many of them aiming at the disintegration of society, instead of again co-operating in one ideal—the restoration of order and the improvement of social conditions, so that the happiness of the greatest number may be secured. It is not by standing idle while we discuss methods that we can get out of our present troubles. If the call is to "man the life boat" we do not wait for academic discussion before the boat is launched on its life-saving mission, and too much argument between capital and labor, just now, is madness in view of what we seek to save. The rising curve of prices cannot be made to turn downward without an increase of production, nor can we face the heavy obligations left by the war except by greatly increasing production. The man who does not do his best at his particular job is not merely helping to barricade the only pathway that will lead us out of our troubles, but he is helping to raise, or to maintain, the cost of the necessities of life for his own family. I may be called a friend of capital for saying this, but I am on record elsewhere as an advocate of many changes in the present relations of the employee and employer, all of them in favor of the employee.

INSUFFICIENT PRODUCTION

While we and the rest of the world are failing to produce on a sufficient scale to provide for human comfort and to pay our debts, the price of everything has so increased, that although all clearing-house and trade returns show higher figures in money, these generally represent transactions based on smaller quantities of merchandise, and because we think in terms of dollars and not of merchandise, we are living in a fool's paradise. The imperious demands of war rapidly raised all prices, and payment was only possible by inflating the currency; unfortunately inflated currency sustains and further increases prices. If with our own currency we bought only goods made in our own country, the minimum of harm would be done, but possessing more currency and fewer commodities than usual, we are acting like the drunken sailor newly come ashore, and buying everything that fancy suggests, whether necessary or not, without regard to whether it is made in Canada or abroad. For every purchase of goods made abroad, whether in Great Britain or China, or anywhere else, we settle through New York, and the rise or fall of the rate of exchange, about which we are so much concerned, is the expression of our failure, or the reverse, to pay cash or its equivalent. In this connection the speaker has for many years, at these annual meetings, presented the facts of our foreign trade, the peculiarities of our relations with the United States, the sales of our securities abroad to pay for the excess of our imports and the danger of mortgaging the future of our country, and has given frequent warnings as to the character of many of our imports.

OUR EXPORTS

The excess of our exports over imports for the year ending 31st March was $343,491,000, as compared with $623,647,000 for the previous year. Although so much smaller than for 1918, the excess was larger than in any previous year. The difference of $280,156,000 is more than accounted for by a falling off of $320,874,000 in our exports to Great Britain, and this again is due to a decrease of $297,893,000 in exports of agricultural products and of $87,318,000 in manufactured articles. For the six months ending in September the exports for the two half years are almost equal, while the imports were $33,571,000 less. It is gratifying to notice that, apart from the decrease in agricultural production, our figures have not been much altered by the cessation of the manufacture of munitions. Food is in greater demand than ever and our factories are behind in the production of almost every line of manufacture, while nearly every form of raw material is difficult to obtain. Our total foreign trade for the fiscal year was $2,176,378,000, as compared with $2,548,691,000 in 1918.

It is clear that, if our foreign trade were on a cash basis, we could pay the interest on our foreign debt and settle for our excess purchases from the United States without difficulty, but Europe cannot pay just now, and we must therefore limit our purchases from the United States wherever that is possible. Doubtless the markets for our securities in the United States will gradually widen, and it will become easier to adjust our accounts, but this will be a poor remedy. We cannot afford to increase our debts to foreign investors in view of the taxation we shall have to bear.

CURTAIL IMPORTS

Let us consider a few items in our imports which at least suggest great possibilities of curtailment, if we are prepared to restrict our pleasures for the common good. Under the head of apparel, we bought abroad to the extent of $8,500,000, including headgear alone for over $5,000,000; under fancy goods, $4,000,000; fruits and nuts, $25,000,000; furs, $4,500,000; gramaphones, over $2,000,000; silk in various forms, $21,000,000; tobacco, nearly $12,000,000; in all, $77,000,000, mostly luxuries. Then we are yearly face to face with enormous imports of material, part of our requirements of which we already produce, or which it would be natural for us to produce. It is obvious that our national finances would benefit if we could either produce the following items ourselves, or avoid in any way their importation: Bricks, clays and tiles, over $4,000,000; coal, coke and charcoal, $79,000,000; breadstuffs, $26,000,000; all foodstuffs, $121,000,000—much of this is doubtless absolutely necessary, but surely there is room for a large reduction; iron and steel in all forms, $161,000,000, including machinery, $45,000,000; textiles in all forms, $168,000,000; motors, railway cars and other vehicles, $18,000,000. We have repeatedly drawn attention to items of this character in past years, but we fear, without much effect. At present, however, the people of Canada are feeling rather keenly the result of their indifference to their own affairs, and it seems worth while to press these facts once more on their attention.

IMPORTS FROM UNITED STATES

There is one comforting feature about our trade with the United States. While in 1913 we bought $2.70, last year we bought only about $1.50 of goods for every dollar's worth bought by the United States from Canada. While our purchases have increased in value by 65 per cent., theirs have increased by 180 per cent. Comparing the totals, the imports for 1919 are less by $46,000,000 than in 1918, but as in the item referred to in past years, military stores, there is a decline of $80,000,000, and another decline of $17,000,000 in pork, both due to the cessation of the war, the imports for ordinary purposes are much larger than ever before. The most notable increases are in traction engines, mainly for farming, about $10,000,000, and in raw cotton, about $13,000,000.

REDUCED WHEAT EXPORT

There are many handsome increases in exports to counterbalance increased imports, but the outstanding feature is the enormous decrease of $295,000,000 in the value of exports of grain, of which $270,000,000 is due to a decrease in exports of wheat. There is a reduction in quantity of 150,000,000 bushels, from 215,000,000 bushels of all grains in 1918, to about 65,000,000 bushels in the year ending March, 1919. In the item, "cartridges—gun, rifle and pistol"—which has figured so largely in our exports during the war, there is a decline of $139,098,000. There is also a decline of $12,000,000 in exports of flax seed. Against the decline in imports of pork there is a corresponding one in exports of bacon, but there is an increase of about $28,000,000 in exports of meats and butter. There is an increase of $14,000,000 in the item of ships sold to other countries. In our imports the totals of increases and decreases are not very far apart, but in exports we have the extraordinary condition of increases amounting to $110,000,000 and decreases amounting to $443,000,000. Had we been as fortunate in the quantity of merchandise we had to export in the fiscal year ending March, 1919, as we were in the previous year, our financial position would have been very different.

FIELD CROPS

The preliminary estimate of the value of our field crops for the year 1919 is $1,452,787,000, as compared with $1,367,909,000 in 1918, the actual figures for which fell slightly short of the estimate. There was a decline in the value of grain crops, but a large increase in fodder crops and potatoes. Except in swine there is a slight increase in the numbers of all live stock on our farms. It is difficult as yet to obtain accurate figures as to the production of our mines for the year just closed. We estimated that of 1918 at $220,000,000, and the actual figures were $211,301,000. For 1919 the best estimate we can obtain is $167,000,000, showing a falling off of nearly $45,000,000, which is almost entirely in metals. Because of the ending of the war we produced only about half the quantity of nickel produced in 1918; about the same quantity of lead and zinc, at lower prices; less copper, also at lower prices; and less silver, but at higher prices.

CANADA'S DEBT

The statement of the public debt of the Dominion of Canada at the end of November shows a net total of $1,817,839,000, and we are informed that at the end of the fiscal year, March 31st, it will be $1,950,000,000. The estimated net amount due by Great Britain to the Dominion at the end of November is $181,000,000. There is also due by the governments of four other countries about $20,000,000. These assets are taken into account in stating our net debt. In addition to the debt due by Great Britain to the Government of Canada, there is a debt of $200,000,000 due by Great Britain to the Canadian banks, on which, however, since the close of the year partial payments have been made. The war expenditure of our government has fallen from a million dollars daily to half a million, but we are still far from normal in this respect. The expenditure for pensions has now reached $3,000,000 monthly.

CANADIAN SECURITIES

The sales of Canadian securities for 1919 are much larger than in 1918, and there is an important difference in their distribution.

Security	Total Sold	In Canada	In United States	In Great Britain
Government	$781,812,000	$629,562,000	$152,250,000	.....
Municipal	27,166,393	18,333,893	8,832,500	.....
Railway	35,355,133	5,700,000	24,550,000	$5,105,133
Public Service Corporation	20,950,000	11,100,000	9,850,000	.....
Miscellaneous	44,100,202	34,595,202	9,505,000	.....
Total 1919	$909,383,728	$699,291,095	$204,987,500	$5,105,133
	100%	76.89%	22.54%	.57%

There is an increase of about $145,000,000 in the total, but the increase in the amount sold in the United States is over $170,000,000. Had it not been for these sales the difficulties in connection with New York exchange would have been much greater.

THE PROCESS OF ADJUSTMENT

The difficulties of reconstruction after the great war are even greater than we feared. The whole world is feeling the effect of four years in which the ordinary work and economics of life were not merely neglected, but the basis thereof was almost swept away. We are short of almost every commodity, the strongest evidence of this being the fact that millions of people in Europe face actual starvation. We cannot re-establish the normal supply of commodities except by working harder than usual, and we cannot lessen the terrible strain of high prices without doing the extra work which will put an end to the lack of commodities. We cannot adjust prices without also bringing about a contraction in the volume of paper money and other instruments of credit, and so far as it is possible to enforce contraction without interfering with the production of what is really necessary, the reduction of prices will be facilitated. In a word, bankers should not aid speculation, or assist ventures which do not directly lead to production. We are still building ships with feverish haste throughout the world, and we ought to be spending large sums on railroads in order that commodities may be freely distributed. The present cost of ocean transportation, quite as much as the cost of goods at the primary markets, stands like a huge barrier across the pathway of return to normal conditions. What is worse, however, is that even present prices, in the natural order of things, will go on rising until the lack in the world's supply of commodities has been filled, and there has been a large contraction in the volume of paper money now in existence.

WAGES AND PRICES

In the case of many classes of wage earners there has been an adjustment of pay against this increased cost of living, but there are many instances in which there has been either no adjustment or one quite inadequate. There are, however, some classes of earners who are so highly paid, in comparison with the past, that they have unusual spending power, and, along with all the others who have profited unduly by the war, they are spending their money in such a manner as to increase still further the troubles of the less well-off. Apart from this, after the gigantic struggle of the war, the world has slackened its energies and is filled with argument and unrest. All these elements move along an ascending spiral which clearly ends in ruin if we cannot arrest their course.

Prices will be higher than before the war for many years to come, but a readjustment to tolerable conditions is absolutely necessary if we are to enjoy the peace bought at such a cost. Governments must cease borrowing and keep their expenditures within their powers of taxation; both individuals and governments must spend less on things not absolutely necessary, and we must all work harder to produce the normal supply of all the commodities useful in life.

CO-OPERATION ESSENTIAL

Canada, as I have already said, won its high place in the world's regard by superb co-operation in the one ideal of winning the war. Can we not compromise for the moment the differences between capital and labor, between farmer and manufacturer, between the various interests that are risking our future for the sale of their own particular grievances, and co-operate in another ideal equally great, the restoration of peace and the return of prosperity on a better foundation? With this accomplished the separate ideals of the industrial divisions of our society can be discussed with far more chance of fair adjustment than is possible in these difficult times.

MUST INCREASE EXPORTS

We know now roughly the cost of the war as represented by our public debt. This debt is held mostly at home, but partly abroad. In addition, there were issues of securities made before and during the war by governments, municipalities and private companies, and sold abroad. On the whole of this debt, so held abroad, the annual charge is about $190,000,000 per annum. Of this roughly about $65,000,000 is due to holders of our securities in the United States, and about $125,000,000 to holders in Great Britain and Europe. This debt we can pay only by an excess of exports over imports or by new borrowings. The debt at home is our own domestic affair. Certain citizens have advanced the cost of the war to the nation, and we now have to distribute this cost by taxation over all the citizens of Canada (except those who escape taxation), so as to meet the annual amortization payments. If the annual payments are obtained by reasonably fair taxation, so levied that the taxes do not become a cause of restraining our industries, we shall not fail to win through, but to accomplish this, much study of the subject is necessary.

TAXATION

Many forms of taxation not yet in use in Canada will doubtless be employed, in addition to those now in force, but the whole question should be approached without that class feeling which often causes taxes to be so apportioned, that bitterness and a sense of injustice are felt by many who do not object to being heavily taxed so long as those who really can afford to pay their share do not escape. The income tax should be paid by a much larger number of citizens. The tax on surplus profits needs much study: there is all the difference in the world, both in justice and in the interest of the community, between a large aggregate of profit made by a small margin on each transaction and a similar sum made by an unfairly large margin of profit on each transaction. The community may be deeply interested for its own advantage in securing the extension of the first kind of transaction, while no one is interested in the success of the other class except the taxpayer himself. The tax in the end must be borne by our industrial activities, and we are foolish if, in our eagerness to escape our own share, we make such burdens so heavy on others that many of these activities must cease, and commodities that under fair conditions might be produced at home are replaced by imports from abroad.

UNION BANK OF CANADA

55th Annual Statement — 29th November, 1919

Fifty-fifth Statement to the Shareholders Discloses Continued Growth of Influential Canadian Banking Institution—Total Assets Built Up to $175,000,000 and $2,000,000 Added to Reserve Fund—Significant Extension of Connections in Canada and Abroad, Aimed to Assist in the Financing of Canada's Foreign Trade—Bank in Strongest Position it Has Ever Held—1425 New Shareholders.

The Fifty-fifth Annual Meeting of the Shareholders of the Union Bank of Canada was held at the Head Office of the Bank, in the City of Winnipeg, at twelve noon, on Wednesday, January 7, 1920.

The President, Mr. JOHN GALT, in the chair.

DIRECTORS' REPORT

The Directors have pleasure in presenting their report, showing the result of the business of the Bank for the year ended November 30th, 1919.

During the year 89 branches and agencies were opened as follows:—

In the Province of Prince Edward Island, 1—Charlottetown.

In the Province of Nova Scotia, 3—Berwick, Kentville and Truro.

In the Province of New Brunswick, 2—Moncton and Sussex.

In the Province of Quebec, 1—Kenogami.

In the Province of Ontario, 13—Blenheim, Burritt's Rapids, Caledon, Campbellford, Charlton, Easton's Corners, Indian River, Ridgetown, Rodney, Toledo, Toronto (Woodbine and Gerrard, Warsaw and Woodlawn).

In the Province of Manitoba, 28—Altamont, Augusville, Clanwilliam, Clearwater, Deepdale, Dropmore, Elm Creek, Elphinstone, Graysville, Homewood, Lowe Farm, Margaret, Morris, McAuley, Oakburn, Rosebank, Roseisle, Sandy Landy, Sanford, Solsgirth, Sperling, Winkler, Winnipeg (Corydon and Lilac) Ellice Ave., Main and Lansdowne, Main and Mountain, Union Stock Yards and West Kildonan).

In the Province of Saskatchewan, 22—Alida, Carruthers, Coleville, Dewar Lake, Drake, Eaton, Govan, Guernsey, Jansen, Keystown, Kyleville, Limerick, La Porte, Major, Mantario, McNutt, Netherville, Palmer, Ruthilda, Salvador, Stewart, Strongfield.

In the Province of Alberta, 17—Acadia Valley, Alcomdale, Bentley, Black Diamond, Hillhurst, Calgary, Chauvin, Clive, Duchess, Leduc, Loyalist, Lundbreck, North Edmonton, Rimbey, Sedalia, Sexsmith, Sunnynook and Waterhole.

In the Province of British Columbia, 2—Vancouver (City Heights and Ducks).

The number of branches and agencies in operation on November 30th, 1919, was 388.

The usual inspection of all branches and agencies has been made.

During the year Advisory Committees were appointed at Vancouver, B.C., Montreal, Que., and London, Eng.

JOHN GALT,
President.

PROFIT AND LOSS ACCOUNT

Balance at credit of account, 30th November, 1918	$126,298.90
Net profits for the year, after deducting expenses of management, interest due depositors, reserving for interest and exchange, and making provision for bad and doubtful debts and for rebate on bills under discount, have amounted to	932,256.80
Premium on new stock	1,781,170.00
	$2,839,725.70
Which has been applied as follows:—	
Dividend No. 128, 2½ per cent., paid 1st March, 1919	$125,617.45
Dividend No. 129, 2½ per cent., paid 2nd June, 1919	132,770.03
Dividend No. 130, 2½ per cent., paid 2nd September, 1919	142,143.62
Dividend No. 131, 2½ per cent., payable 1st December, 1919	167,799.32
Transferred to Rest Account	2,000,000.00
From Premium on new stock.. $1,781,170.00	
From Current Profits..... 218,830.00	
Contribution to Officers' Pension Fund	10,000.00
Contribution to General Hospital, Winnipeg	5,000.00
War Tax on Bank Note Circulation to 29th November, 1919	58,172.41
Balance of Profits carried forward	198,222.87
	$2,839,725.70

General Statement of Liabilities and Assets as on 29th November, 1919

ASSETS

Gold and Silver Coin.....	$953,902.93	
Dominion Government Notes.	13,724,823.00	
		$14,678,725.93
Deposit with the Minister of Finance for the purposes of the Circulation Fund		260,000.00
Deposit in the Central Gold Reserves		5,500,000.00
Notes of other Banks		1,576,481.00
Cheques on other Banks		7,509,201.41
Balances due by other Banks in Canada		102,287.30
Balances due by Banks and Banking Correspondents elsewhere than in Canada		3,569,800.66
Dominion and Provincial Government Securities not exceeding market value		13,048,913.69
Canadian Municipal Securities, and British, Foreign and Colonial Public Securities other than Canadian		15,818,016.79
Railway and other Bonds, Debentures and Stocks, not exceeding market value		2,602,740.30
Call and Short (not exceeding 30 days) Loans in Canada, on Bonds, Debentures and Stocks		3,439,410.79
Call and Short (not exceeding 30 days) Loans elsewhere than in Canada		7,956,854.74
		$76,062,432.61
Other Current Loans and Discounts in Canada (less rebate of interest)		86,529,156.17
Other Current Loans and Discounts elsewhere than in Canada (less rebate of interest)		3,672,372.29
Real Estate other than Bank Premises....		268,476.29
Mortgages on Real Estate sold by the Bank		150,645.10
Overdue Debts, estimated loss provided for..		248,532.51
Bank Premises, at not more than cost, less amounts written off		532,740.61
Liabilities of customers under Letters of Credit, as per contra		7,186,940.91
Other Assets not included in the foregoing.		337,760.98
		$174,989,057.47

LIABILITIES

Capital Stock		$7,968,150.00
Rest Account	$5,600,000.00	
Balance of Profit and Loss Account carried forward	198,222.87	
	$5,798,222.87	
Unclaimed Dividends	10,951.73	
Dividend No. 131, payable 1st December, 1919	167,799.32	
		5,976,973.92
		$13,945,123.92
Notes of the Bank in circulation	$12,508,819.00	
Deposits not bearing interest..	51,119,804.54	
Deposits bearing interest.....	84,376,709.79	
Balances due to other Banks in Canada	572,355.79	
Balances due to Banks and Banking Correspondents elsewhere than in Canada	5,058,941.92	
		153,636,631.04
Acceptances under Letters of Credit		7,186,940.91
Liabilities not included in the foregoing		220,361.60
		$174,989,057.47

Continued Next Page.

UNION BANK OF CANADA—*Continued*

Report of the Auditors to the Shareholders of the Union Bank of Canada.

In accordance with the provisions of subsections 19 and 20 of Section 56 of the Bank Act, we report to the Shareholders as follows:

We have audited the above Balance Sheet with the books and vouchers at Head Office and with certified returns from the Branches.

We have obtained all the information and explanations that we have required, and are of the opinion that the transactions of the Bank which have come under our notice have been within the powers of the Bank.

In addition to our verification, at the 29th November, we have, during the year, checked the cash and verified the securities representing the investments of the Bank at its chief office and principal branches and found them to be in agreement with the entries in the books of the Bank relating thereto.

In our opinion, the Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the affairs of the Bank, according to the best of our information and the explanations given to us, and as shown by the books of the Bank.

T. HARRY WEBB, E. S. READ,
Auditors of the firm of
GEORGE A. TOUCHE & CO.,
with which is amalgamated
WEBB, READ & CO.

Winnipeg, 20th December, 1919.

H. B. SHAW, General Manager.

JOHN GALT, President.

Customs Rulings

(*Continued from page* 231)

son-Paterson Company's prosperity soda, and similar combinations of soda ash and bicarbonate of soda.

Declared that Dexter and Cross continuous feeders, per illustrations submitted, when attached to, or together with, presses with which they operate, or when impored separately, are dutiable under tariff item 453.

Wrappers of an advertising character designed to be pasted on cans or other containers, ruled by the Board of Customs on 9th October, 1917, to be dutiable under tariff item 178.

Ship's port lights are now manufactured in Canada and therefore not entitled to entry under tariff item 470.

Pulley blocks of wood or iron, single, double, triple and quadruple, up to 18 inches in diameter are now manufactured in Canada and therefore not entitled to entry under tariff item 470.

Continuous feeders for printing presses, ruling machines or folding machine, whether imported separately or with the machine with which they operate, are dutiable under tariff item 453.

Vacuum system for stripping cards,—ruled to be dutiable under item 453.

Gramophones for educational purposes, not admitted under item 696.

Australian Import Restrictions

Proclamation Issued Prohibiting Importation of Certain Specified Commodities

The High Commissioner for Australia, London, has reveived advice from the Prime Minister to the effect that a proclamation, dated 1st November, 1919, has been issued prohibiting the importation of the undermentioned goods except by license. The conditions upon which the Minister for Trade and Customs will issue a license will be published later.

Absolute alcohol.
Amylic alcohol.
Collodion.
Sulphuric ether.
Anæsthetic ethers.
Ethyl acetate.
Cocoa and chocolate, potable.
Rennet.
Muntz or yellow metal, nickel, silver, German silver and Britannia metal sheets.
Bronze and gunmetal bars, rods and ingots.
Gilding metal sheets.
Antimony, star antimonial and lead compounds, viz., type and linotype metal, antifriction and plastic metals.
Brass, viz., angles and tees, bars and rods, pipes and tubes, plate sheet and strip.
Copper, viz., angles and tees, bars and rods, pipes and tubes, plate sheet and strip wire.
Phosphor copper—bars, rods and ingots.
Zinc and spelter—bar and ingot.
Railway and tramway materials, viz., rails, fishplates and fishbolts, tie plates and rods, switches, points, crossings and intersections.
Beams, channels, girders, and joists, rolled iron or steel.
Manganese or chrome steel parts for grinding, crushing or pulverising machinery.
Accumulators or storage batteries.
Wire, electrical cotton-covered.
Tubes, collapsible.
Iron and steel—pig iron, ingots, blooms, billets, bar, rod, angle, tee, high-speed tool steel bars, rods and ingots.
Oils, coal-tar, viz., benzol, naphtha (solvent), naphtha (heavy).
Paints and colors, viz.:
Dry white lead.
Paint ground in liquid in packages weighing over 14 lb.
Plaster of Paris.
Carbolic acids.
Cresylic acid.
Crude creosote and crude tar oils.
Naphthaline, crude.
Naphthaline, N.E.I.
Arsenate of calcium.
Arsenate of lead.
Arsenate of soda.
Arsenate of zinc.
Carbolic disinfectants.
Sodium hyposulphite.
Arsenic.
Arsenate of soda.
Arsenic sulphide.
Ethyl chloride.
Sodium sulphate (glaubers salts).
Bacteriological products and sera.
Veneers, three-ply.
Strawboard.
Frames for side cars in sets.
Wheels, steel and steel rimmed (including tyres), for use on railways and tramways.
Axles and other parts for such wheels.
Panels and mudguards for motor cars.
Hosiery yarns.

The British Board of Trade understand from a cable they have received from their Senior Trade Commissioner in Australia that goods in the course of shipment or on *bona fide* order, except those previously specially prohibited, will not be refused entry.

New Merchants Director

Western Business Man Identified with Grain Trade Elected to Board of Directors

At the Merchants' Bank directors' meeting, held on the 28th November, E. W. Kneeland, of Winnipeg, was elected to a place upon the Board. The appointment of a Western man whose interests are entirely centred in the wheat business is an indication of the growing importance of the West in the minds of the powers that be in our eastern banks. Mr. Kneeland, who is a naturalized Canadian subject, having been born in the United States of Canadian parentage some fifty years ago, has devoted his whole life to the development of the grain business in the United States and Canada. He is now general manager of the British American Elevator Company; vice-president, Port Arthur Elevator Company; vice-president, Saskatchewan Elevator Company and Liberty Grain Company. He is a director of the National Elevator Exchange, Traders Building Association, Canadian Bond & Mortgage Company, all of Winnipeg, and he is, of course, a member of the Winnipeg Grain Exchange.

Review of Industrial Conditions

Continued from page 218

CONDITIONS IN THE OIL INDUSTRY

By S. R. Parsons

President, The British American Oil Co., Limited, Toronto

We have experienced less difficulty during the past year in obtaining help than for two or three years previous. Our older employees have continued their loyal activities and the newer ones, except here and there, have not given us unusual trouble.

There has been more or less shortage of raw materials, causing some delays, but generally speaking we have been rather fortunate and do not look forward to any difficulty in our operations on account of materials.

On the whole, general operating conditions have been pretty satisfactory. So far a scheme of co-operation, which we put into effect about a year ago, with joint committee control of certain operating conditions, has proved of great service.

The demand has been very satisfactory throughout the year. Values have not changed to any great extent. On account of the fact that our raw materials are imported, we do not have as good an opportunity of exporting our products as United States refiners, except here and there for surplus lines.

If the labor situation, generally speaking, is not influenced largely by the cry for shorter hours irrespective of production, we believe we see in prospect a reasonable good year. If unfortunate labor troubles arise elsewhere or in our own country, reducing production and making it more difficult to obtain raw materials or finished products, it will interfere with the otherwise generally good outlook.

We anticipate adding to our refinery facilities, giving us a larger output for use in the home field. Before the end of 1919 we hope to have a capacity of from twenty-five to thirty-three and one-third per cent. greater than that at present. In our case this does not mean the introduction of new lines. We are also adding materially to our branches.

BIG EXPANSION BEING ARRANGED FOR

By R. H. Coombs

General Manager, Prest-o-Lite Co. of Canada, Limited

We have had very little trouble in the past year with labor, in fact, none so far as the Prest-O-Lite Company is concerned and only a small amount of trouble with the Canadian National Carbon Company. This latter trouble was due to unrest and dissatisfaction among a lot of cheap aliens whom we had on some rather dirty processes. We have now adopted a policy to employ none but English-speaking people, either British subjects or Americans and as long as we continue to employ this class of labor we expect no labor trouble.

As to raw materials, the products of both of these companies are made from raw materials which unfortunately must be imported from the United States, our principal ingredients being desilverized electrolytic pig lead and oxides thereof, carbon flour, coke, manganese, zinc, hard rubber etc. We are not experiencing any trouble in securing these materials.

Demand is satisfactory both as to amount and kind. Values are and have been stationary for over a year. We have not tried to develop the export field owing to inability with existing facilities to properly take care of domestic trade. The outlook for the near future seems perfectly satisfactory, except that the exchange differential and the necessity for importing our raw materials from the United States is rather apt to influence an advance in our manufacturing costs and consequently in our price to our distributors. However, owing to the very small advance made in the selling price of the products of our companies in the past 3 or 4 years, we do not believe that the small advance required to cover this particular feature, will in any way influence the volume of business.

As to enlargement of our capacities and the expansion of our business, we are at the present time engaged in the erection of a large new general plant in Toronto for housing both the plants of the Canadian National Carbon Co., and the Prest-O-Lite Co. The Prest-O-Lite Co. will also erect a new manufacturing plant in Toronto vicinity in the Spring, for compressed acetylene gas—one of the products of the company, used extensively in the oxy-acetylene processes. This company will also erect a new storage battery assembly plant and warehouse at Winnipeg early in the coming Spring.

CONDITIONS IN TWINE AND ROPE INDUSTRY

By R. F. Shurly

President, Shurly & Derrett, Limited, Toronto

Our experience with labor is that it has been quite scarce and very irregular. Raw materials, since the war broke, have been very difficult for us to obtain, as previous to that time practically all the soft fibre used in this country came from Europe (Russia, Italy and India), so we had to seek a new source of supply. Present conditions are that there is very little, if any, raw material on earth, of a good quality. General operating conditions have been very difficult, but we have increased our output about one-third.

Demand at the present time is great for all kinds of twine and rope, with values abnormally high. We do not consider it at all feasible or possible to export soft fibre cordage from Canada, and in our opinion it will not be possible in the future, unless conditions are absolutely different from pre-war.

The present outlook, as far as we are concerned, is good. We are booked from two to three months ahead, but by reason of the abnormal, and somewhat ridiculous figures for raw material generally, and the consequent prices that we have to obtain, we could not say exactly what six months hence will demonstrate, should there be any lessening of demand.

We have enlarged our capacity already about one-third, and have further extensions in view, but delivery of machinery is very much delayed. We have not introduced the manufacture of any new lines; in fact, we have had to cut some of the lines we previously made.

THE BRUSH AND BROOM INDUSTRY

By John C. Boeckh

Sec.-Treas., The Boeckh Company, Limited, Toronto

During the past few years we have found it exceedingly difficult at times to procure satisfactory labor, and the applications for new help which we received were not, in many instances, very satisfactory. On the other hand, wages have considerably advanced and it is quite probable that with the present increasing costs of living, they will continue to increase proportionately.

We have not suffered to any great extent as yet through the shortage of materials, though prices have advanced from 100 to 300 per cent. on different lines, with some products

The balance of trade in merchandising



WE hear a lot these days of the so-called balance of trade; and much has been made of Canada's unfavorable position in this respect.

At present the balance of trade is against us.

Therefore we, as Canadians, will have to produce more and buy more within the borders of our country, if the balance is to be restored to anything like an equilibrium.

As with nations, so with individuals.

The manufacturer who adopts an aggressive policy of production and sales, and supports that policy with vigorous and informative advertising, will divert business to himself and create a trade balance in his favor.

By the same token the manufacturer who fails to take advantage of the opportunities which advertising presents, will lose to his advertising competitor in Canada or across the line sales which might otherwise be his.

Our business is to help the manufacturer who is out after all the trade he can legitimately get.

For him we secure dealer co-operation because we do something for the dealer. We gain for him the reader's confidence because we are straightforward with the reader. We retain his goodwill and account because dealer co-operation and reader confidence sell the goods of the manufacturer whose advertising we plan, write and place.

"It's all in the Service"

Norris-Patterson, Limited

Advertising Agency

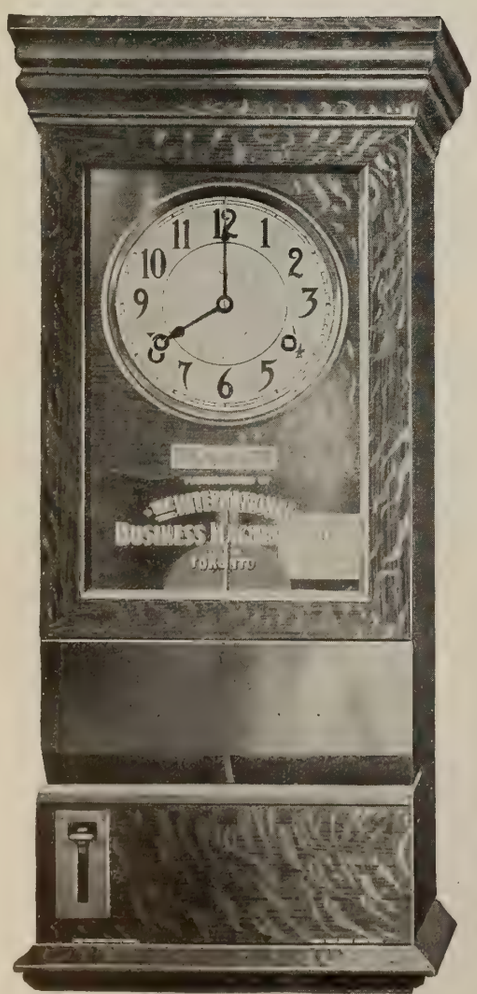
10 East Adelaide Street **Toronto, Canada**

"Pencil Records! don't go"



Make this a rule in your plant. It's a good one for any business. For the business depending on labor time records it is absolutely imperative.

International "Job" Time Recorders



International Job Time Recorder

Every job or operation calls for a "job card." The workman punches the time he starts it. He again punches the time he finishes. Both records are ***printed*** on the card by mechanism inside the machine, in absolutely accurate unchangeable figures. ***There*** you have the basis of a complete time-keeping system that will keep track of actual working time and, quite as important, give you a tracer on your "expense labor time"—the working time you are paying for but not using.

You need our Service
We can help you

Let us send you our latest folders

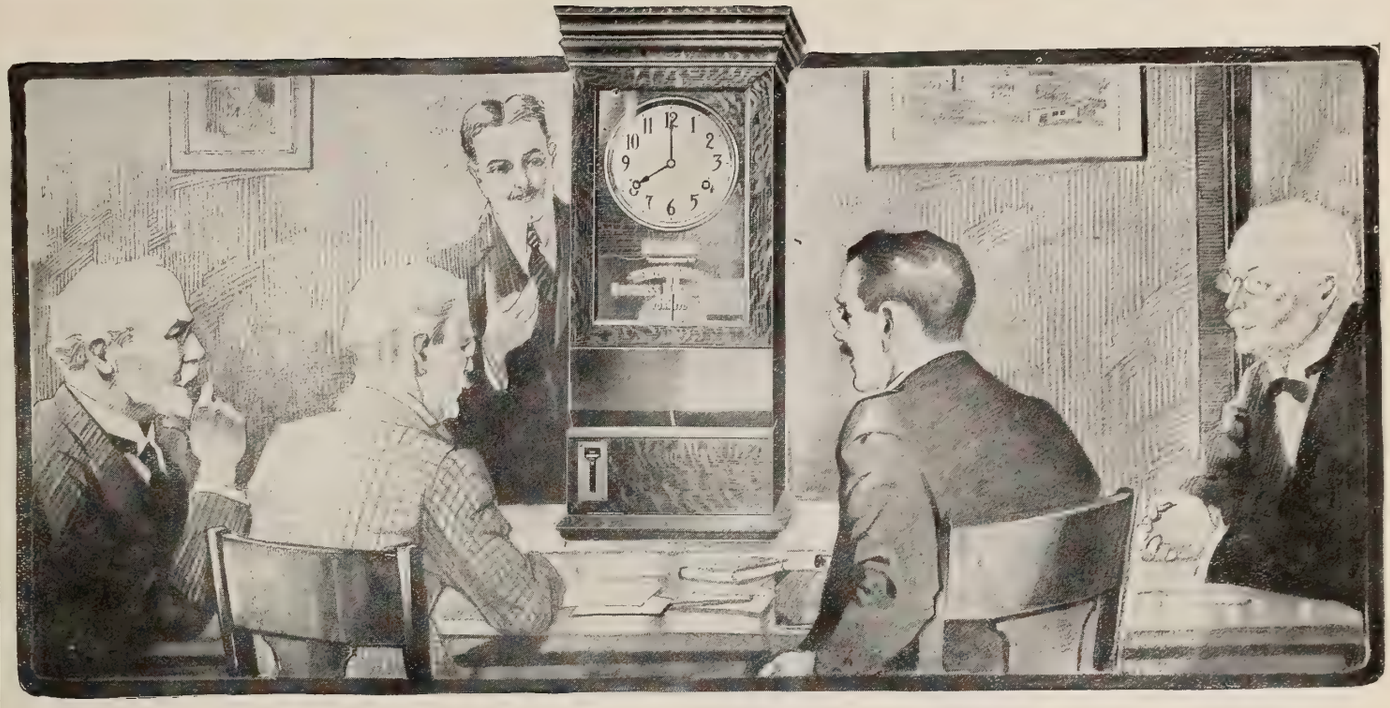
International Business Machines Company
Limited

FRANK E. MUTTON, Vice-President and General Manager

Head Office and Factory: **Campbell Ave., Toronto, Ont.**

Also at Montreal, Winnipeg, Vancouver

(Also makers of Hollerith Electric Tabulators and Dayton Scales)



"Here's the Time Recorder that earned our dividends for us, Gentlemen!"

"This is how it happened. Last year we put in expensive modern high-speed machines---but we also had an old-fashioned time and cost recording system. Result---our production was disappointing.

"This year my first move was to call in experts from the International Business Machines Company who investigated and showed a convincing report. In each department we now have an International Job Recorder. Each workman prints the exact starting and stopping time on every job.

"It didn't take long to pick out the producers. We've replaced the 'non-producers', those who didn't measure up, and have brought in new blood.

"Every man in the shop is a paying investment. Some are better than others. We picked 'Job Bosses' and set them on the different operations and after thorough and scientific tests we set a standard output for each machine. Now we are getting it and more because of the right spirit among the men.

"We've cut out the maddening programme of errors and disputes.

"Briefly, these are the reasons why we have earned our dividends this year."

Write Today for Our Latest Folders, Interesting and Resultful.

International Business Machines Company Limited

Time Recorder Division

FRANK E. MUTTON, Vice-President and General Manager

Head Office and Factory
Campbell Ave., Toronto, Ont.

Also at Montreal
Winnipeg, Vancouver

(Also makers of Hollerith Electric Tabulators and Dayton Computing Scales)

entirely off the market, especially those coming from such countries as Russia and France. This has in turn made a greater demand for the materials available, which has had the effect of making them at times very scarce and difficult to obtain, besides the prices in all cases advancing very rapidly. However, under these very adverse conditions, we have been able to considerably increase our output, due largely to installation of labor-saving machinery and to the loyalty of our old employees who have been with us a great number of years.

The demand at present for our manufactures is very large, and even with our increased output our capacity has been taxed to the utmost and it is quite likely that we will have to disappoint some customers later on. Selling prices have of course been advanced from time to time, and it is probable that further advances will take place in the near future.

We have also begun the manufacture of kindred lines, and while it is too early to give our forecast as to future possibilities for the sale of same, we anticipate that the demand will grow and develop to a large extent.

As to future conditions of trade generally, we would not want to express an opinion as no doubt these conditions are dependent on certain factors and their influence on the situation is difficult to define. It seems, however, to us that with the great shortage of supplies of all kinds, and the increased demands for them, that trade generally should continue good for some time to come with a period of prices at present day levels or higher, unless other circumstances, of which to-day we are not aware, enter into the situation.

REVIEW OF ELECTRO-CHEMICAL INDUSTRY

By H. W. Matheson
Vice-President, Canadian Electro Products Co., Ltd., Montreal

Our factory is located at Shawinigan Falls and we have had but very little trouble in connection with labor. The French-speaking element are not in general labor agitators, consequently at the present time labor conditions are favorable. On the other hand, our policy has always been to meet labor half way, and we increase their wages at least in proportion to the increased cost of living. At Shawinigan Falls, all the local industries work together in this respect and in many cases we have increased their wages without being asked to do so. This has had a very good effect on the labor element and creates in general good feeling.

We do not purchase very much raw materials excepting manufacturing equipment. The few raw materials we do purchase for manufacturing purposes are readily obtainable at reasonable prices. The equipment for use in manufacturing we are obliged to purchase largely in the States. This is a serious handicap when one considers the high duty, war tax, etc., together with the now heavy rate of exchange we have to pay.

No difficulties are encountered in transportation as far as Canada and the United States are concerned, but the largest portion of our output is shipped to England and the Far East, and most serious difficulties have been experienced in the past months, and are still being experienced, in securing shipping space, especially to Europe. This has been due to lack of tonnage in the first place, and secondly, to the difficulty in having our Canadian transportation companies accept our materials. These materials, which at the present time consist of acetic acid and paraldehyde principally, have not been manufactured in Canada prior to the war, and the steamship companies know very little about these materials, and consequently are adverse to accepting them when they can secure cargoes so easily. This is being overcome by a process of education of the steamship companies. The overseas freight rates to Europe are also very high, and we are at the present time paying $40.00 per ton, which is quite a serious handicap; whereas, on our business to the Far East, which is considerable, we only pay $25.00 per ton.

When war closed we did not have any great prospect of any large volume of business for some time, consequently we did not prepare for operating on a very large scale. Business, however, has picked up so rapidly that at the present time it is impossible for us to fill the orders, and we are making plans to increase our output in the very near future.

Demand for our products has increased greatly both in the United States, Europe and the Far East, with a general trend of values slightly upward. At the close of the war our product dropped almost to pre-war prices, this being largely due to the enormous stocks held in both the U.S. and England. These stocks are now being greatly reduced, and it is expected they will be entirely exhausted by the first of May next. It can be readily seen that products cannot be manufactured at pre-war prices and consequently, as already mentioned, the prices are going upwards.

The outlook for the future is fairly bright, but since, as already mentioned, the major portion of our material goes to Europe, the problem of exchange is one of the most serious features militating against the volume of business. It is difficult to increase the price in England above a certain price for our products, since the material will then probably come in from Germany; in fact, we have already encountered some competition from Germany, especially in Belgium and Holland, and it will only be a question of time until this competition is felt in England. With the mark at its normal value, I believe it would be impossible for the Germans to compete, but under present conditions it is felt that the Germans can readily compete with our products in the English market.

As already mentioned, we are enlarging our capacity considerably, possibly to the extent of 20 per cent., and in addition to this are studying at the present time the problem of manufacturing new products. It is impossible for us to mention what these are at the present time, but in general they will consist of materials which can be manufactured by the utilization of water power and which have good markets in England, and due to the absence of water power in England are uneconomical to manufacture there.

THE TIME RECORDING MACHINE INDUSTRY

By Frank E. Mutton
General Manager, International Business Machines Co., Ltd., Toronto

The manufacturing situation with us is in a good healthy condition. We had very little labor trouble even during the strike, in fact it was only like a flash in the pan; it amounted to nothing as far as our plant was concerned. We employ and have been fortunate in securing a splendid class of labor. Further, our employees are what you might class in the constant category, that is, it is seldom anyone leaves our employ, except from illness.

As to raw materials, we have had about the same difficulties as all other manufacturers. Steel has been difficult to get—that is the proper kind. Castings have been very difficult to get, and only at a very enhanced price. However, we have never been handicapped for the want of material.

Our operating conditions are very satisfactory. We increased our output for the first eleven months of 1919 approximately 50 per cent. without any increased floor space. We find the demand in an extremely healthy condition for our three products, namely, time recording devices, Dayton scales, and Hollerith tabulating machines, with the demand increasing all the time. The price of our products have trended upwards owing to the increased cost of production.

We consider that the outlook for immediate and future business for at least three to five years was never as good in the history of this company. In fact, it impresses us

Gillette

MADE IN CANADA

Safety TRADE Gillette MARK Razor

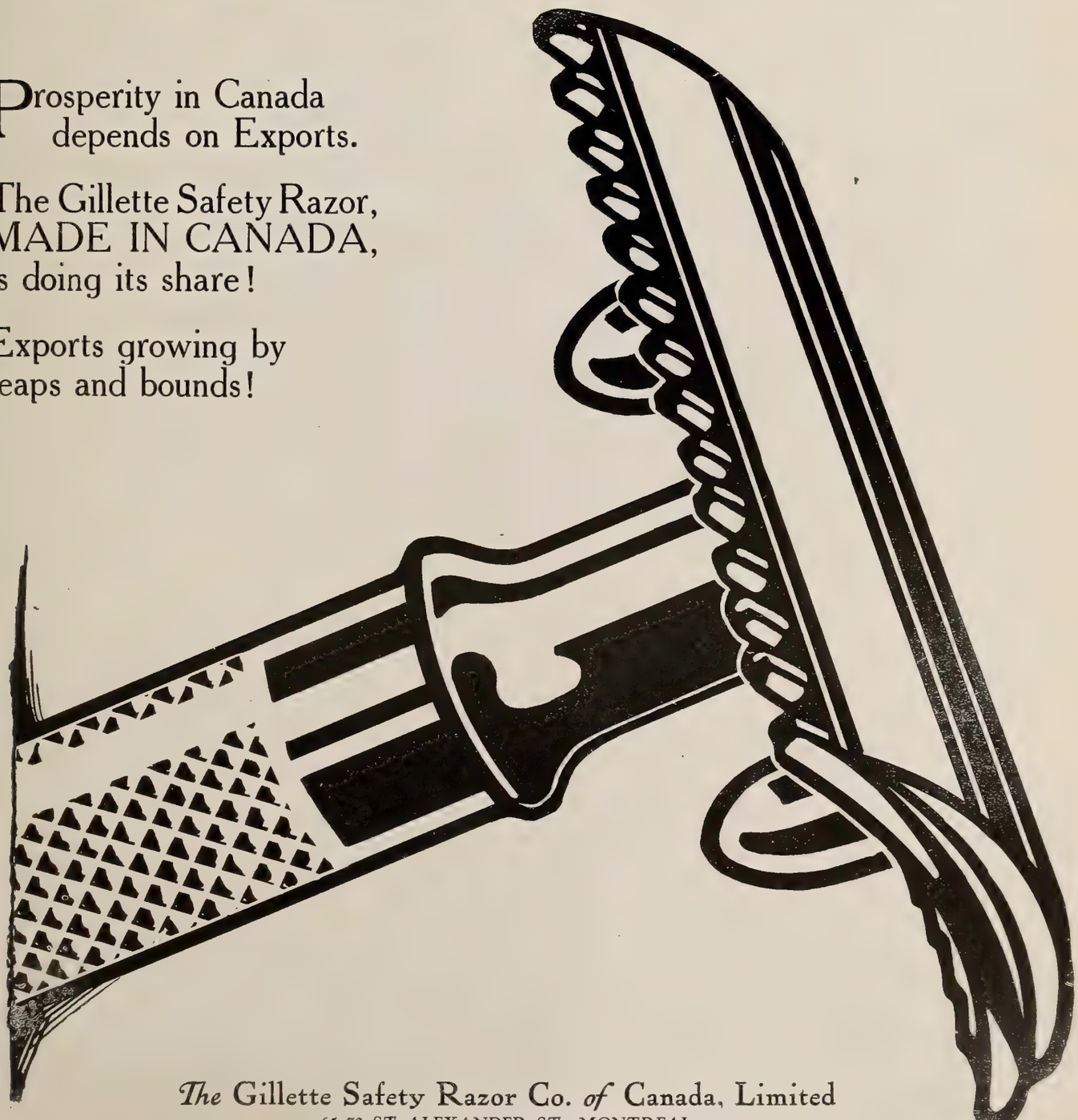
KNOWN THE WORLD OVER

THE SHAVING SERVICE FOR EVERYMAN---EVERYWHERE

Prosperity in Canada depends on Exports.

The Gillette Safety Razor, MADE IN CANADA, is doing its share!

Exports growing by leaps and bounds!



The Gillette Safety Razor Co. *of* Canada, Limited

65-73 ST. ALEXANDER ST., MONTREAL

that it is a matter of production. We can sell more than we can produce, and there is every reason in our opinion, gathered from economic conditions, that this situation will continue for the time mentioned.

We are planning to increase our manufacturing facilities and space about 50 per cent., the plans are about now completed. As to new lines, we will be placing on the market in the next two months our new electric door lock, and after careful investigation, it would clearly indicate there will be a great demand for same, and we are making preparations to take care of it.

CONDITIONS IN JEWELRY MANUFACTURE

By Geo. H. Lees
Geo H. Lees & Co., Ltd., Hamilton

We would state that the year just closing has been the most successful one in our experience. The difficulties, too, have been more than usually numerous. It has been impossible to get a sufficient supply of skilled labor, and wages during the year were considerably advanced. Raw materials were to be had, but it took somewhat longer than usual to get them, and the prices were largely advanced. Still, taking it altogether, we did very well, and have increased our output nearly to the extent of 50 per cent.

Quite a percentage of our business this year might be traced directly to the close of the war and returned soldiers, including medals, rings, and other souvenirs presented to the returning soldiers. We do not look for much business of that kind in the coming year, and yet, as business is so good along other lines, we are looking to the New Year with anticipation of a good demand for our goods.

Owing to the high price of silver, the exchange on materials, and goods imported from the United States, and the Government jewelry tax of 10 per cent., there has necessarily been forced quite an advance in prices.

We had planned at the beginning of the year to endeavor to open a line of export business, but the home trade developed so during the year that we found it impossible to satisfactorily handle it, and the export trade had to be entirely neglected.

We have not made any definite plans for enlargement of our factory, but if business continues to increase, that must necessarily be our course.

Answering your enquiry as to whether we have manufactured new lines, would say that the reverse to this has been our tendency for the last few years. Our policy has been to make as few lines as possible, feeling that we could give better results where the market offered us the opportunity of so doing, so that we make scarcely more than half of the variety of goods we did ten years ago.

GREAT DIFFICULTY IN OBTAINING MATERIALS

By L. W. Simms
President, T. S. Simms & Company, Limited, St. John

While we have of course felt it necessary to keep abreast of the steadily rising cost of living by advances in wages and while a certain amount of agitation from outside sources is constantly reaching us in the way of rumors, comparative contentment prevails, which we are seeking to foster by close co-operation in affairs concerning our plant. The supply of labor, while not acutely scarce, has at no time for the several past years been quite up to what we could have profitably absorbed.

Possibly at no period during the war have we experienced as severe difficulties in obtaining bristles, fibres and other materials of foreign origin, entering into brushes, as at the present time. Prices have advanced to a very considerable figure beyond anything prevailing during the war and the one concern on the part of the manufacturers in our industry seems to be to obtain supplies at most any figure.

We are slowly but steadily increasing our output. In this industry increase is necessarily slow in most of our departments, owing to the lack of hand labor of a fairly skilled nature, necessary to develop.

There is a very decided demand for practically all the lines that we manufacture, the orders received during a comparatively short period this fall being in excess of anything we have experienced in our history. Costs of practically everything entering into our products have continued to advance, which coupled with the increased wages, has made it necessary to put out repeated advances with others in prospect. The tremendous demand in the home market together with an increase in the demand in export markets, mostly in our case within the British Empire, has made it so far impracticable for us to seek further fields.

As far as future business is concerned, we believe there is quite a decided scarcity in the brush line especially, and the fact that increased building is imperative, and a great many properties have reached the point where they absolutely demand painting this coming spring, will cause a very decided demand for brushes, in excess of what we have experienced for several seasons.

THE ENVELOPE MANUFACTURING INDUSTRY

By C. G. Ellis
Barber-Ellis Limited, Brantford

There has been great difficulty in getting sufficient labor, and continually increasing difficulty in getting raw materials. We have no complaints to make regarding transportation, and even under the difficulty of procuring labor and material we have succeeded in increasing somewhat our production. This we deem very satisfactory as far as we are personally concerned.

The demand for the class of goods which we manufacture, viz., envelopes, is excellent; values have increased somewhat. Helping to build up export business would be very difficult on account of the seemingly increasing trouble in getting raw material; our raw material is paper.

We are enlarging our plant in Brantford, and also greatly improving our mechanical equipment, and in doing so we have felt that the outlook for trade for 1920 in the particular lines that we manufacture, is excellent, that prices will remain firm and that as very little of our particular line is imported just at present, we should be quite busy during the coming year.

DEMAND FOR FERTILIZER EXCEEDS SUPPLY

By A. E. Bonn
General Sales Manager, American Cyanamid Co.

Labor conditions in general are good. Labor has been scarce since 1916, but with us it is now reliable and effective. Raw materials secured in Canada are of good quality, but high in price. Transportation conditions, generally, are quite satisfactory, except for occasional car shortages. Our normal operating conditions are good. Since 1916, conditions have been upset and uncertain, but they are now improving.

The fertilizer and heavy chemicals market conditions are exceptionally good. The world demand for fertilizers far exceeds available supplies, and consequently the trend of values is upward. The heavy chemicals of our manufacture are enjoying good demand in Canada and the United States.

The outlook for the next three to six months is most encouraging, and if a setback develops, we do not think it will be acute before the summer of 1920. The credit situation in Canada and the United States is likely to be an industrial deterrent by the time mentioned, unless the whole banking situation and conditions affecting international exchange are improved by governmental action in the meanwhile.

REES' RoTURBo
PUMPING MACHINERY

Is used the world over in Modern Industrial Plants, Power Stations, Waterworks, Mines, Pulp and Paper Mills, Salt and Chemical Plants, where highest efficiency, reliability and high-class engineering are demanded.

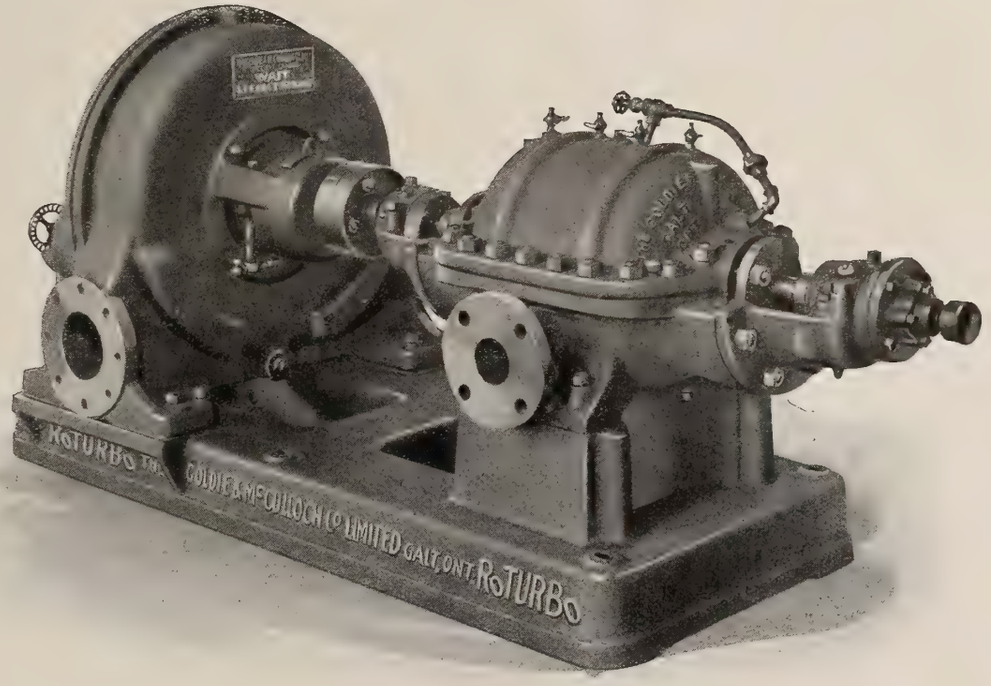


Illustration shows a REES' RoTURBo Multi-stage Pump direct connected to Goldie & McCulloch "WAIT" Steam Turbine, recently built for the Salts & Potash Co. of Canada, Limited, for pumping brine.

REES' RoTURBo Pumps provide a very high and sustained efficiency over a wide range of duties which means a saving in power costs. The self-regulating feature of RoTURBo design is responsible for this saving, and this same feature protects your prime mover from overloads on a decreased pressure head, eliminating expensive delays and costly repairs.

Catalogues and complete details mailed to those interested on request.

THE GOLDIE & McCULLOCH CO., Limited

Head Office and Works: GALT, ONTARIO, CANADA

TORONTO OFFICE: Suite 1101-2 Bank of Hamilton Bldg.

WESTERN BRANCH: 248 McDermott Ave. Winnipeg, Man.

QUEBEC AGENTS: Ross & Greig 400 St. James St., Montreal, Que.

BRITISH COLUMBIA AGENTS Robt. Hamilton & Co. Vancouver, B.C.

Steel Industry

(*Continued from page* 177)

U.S. steel strike on our market is not at all noticeable. What effect the coal strike may have it is impossible yet to determine.

We have not made any developments regarding the manufacture of new lines or extension of capacity during the war.

Our experiences in the export field have not been large, so far as steel products are concerned. During the war we sold a large number of cars, built by our subsidiary, The Eastern Car Company, for shipment to Russia and France. Had we not been able to transport these cars ourselves, the results would have been unsatisfactory. The low financial standing of European countries and the general conditions there, are so uncertain that one would be very unwise, we feel, to make any prophecies regarding the development in that direction. Even with the considerable protection which we have in Canada, we have found it somewhat difficult to compete with the American steel producers. This being the case, you can quite understand that in neutral markets this competition is that much more severe and militates against any excessive export business in steel products in normal times.

The immediate future of the Canadian steel business is dependent entirely on the immediate future of all business in Canada; our views on that point are very indefinite. After five years' war, during which very little railway equipment or steel material of any kind were brought into the country or manufactured therein except for war purposes, it would seem rational that there should be a domestic demand of very large proportions. So far, however, these expectations have not been realized, and it is only within the past few weeks that any buying movement in steel products has been evident. It will be necessary, however, that if the country is to progress, there must be a large amount of business develop to take care of the depreciation and replacements necessary during the past five or six years. In this part of the country, as you are aware, tremendous resources of raw material in the shape of iron ore and coal are available. That they will, in the not very distant future, be much more fully utilized than they are at present is, I think, something that everyone recognizes.

Stove Industry

(*Continued from page* 215)

Canada will be quite able to meet demand if the labor is available. We do not think any of the foundries are operating to their full capacity and that their operations are limited rather by number of men available than by size of buildings and equipment.

Export business has not been a factor with us. Although we know that some stoves are being exported, we do not think the quantity is of sufficient importance to affect the trade here.

PRODUCTION HAS SOMEWHAT DECREASED

By Another Manufacturer

Manufacturing conditions have been unsatisfactory as regards supply of labor and raw material. As far as we are concerned we have not been able to get sufficient output. As a consequence production has decreased in comparison with previous years, both from the fact that we are short-handed, and the output per man has been less, notwithstanding a considerable increase in wages.

Notwithstanding the increased high prices, the public seems to be buying goods of best quality. Price does not seem to limit the demand. Export business in enamelled ware is an important factor and we could have increased this business to the limit of our production. However, we felt our first duty was to the home market and have only taken such business in this direction as we could handle without prejudice to our regular trade.

The outlook as far as demand is concerned is satisfactory. The present condition as to supply of materials is so embarrassing that it is impossible to forecast what the production will be for the coming year. We have no immediate plans for factory enlargement. We first have to get up production to the capacity of our present plant before extending.

CONDITIONS HAVE BEEN SATISFACTORY

By W. J. Bathgate

Percival Plow & Stove Company, Merrickville

Conditions here as regards labor, raw material and general operations have been on the whole very satisfactory. Our production has increased about 10 per cent. The big demand has been for a medium-price range. We are not in any position to consider export trade and have had several inquiries that we could not entertain. The outlook is the most encouraging during our existence, and to meet this anticipated demand we are considering new buildings and extensions that will enlarge our plant by 20 per cent.

Agricultural Implements

(*Continued from page* 182)

facturers and producers to dispose of their output as near cost as possible for the next twelve months.

The outlook, so far as our business is concerned, depends entirely on the crops. With good crop conditions our business will be good. The tendencies of the next few months, or if not within the next few months, within a year, will be lack of work for the large number of workmen who have been induced to come to the cities from the rural districts by the large wages offered, and the only thing that will compel these men to go back to the farms will be the lack of work, and we feel that that is coming and that it is the only solution of the present situation.

If we could depend on a stable tariff policy we would expand, not only for our home trade, but to develop an export trade, but until a tariff commission is appointed or some legislation is passed that will give the manufacturers confidence in a tariff policy, we do not intend to expand in any way.

The whole matter, to our mind, is one of economics. If Canada is better off without machinery manufacturers; if the intermediate manufacturers who sell to the farm machinery manufacturers remain indifferent to the situation; if the Government does not think it needs the manufacturers in Canada to assist in paying the war debt; if the farmer considers it wise to drive the manufacturer (who has been paying the large share of the war debt, and who has financed for fifty years the Canadian north-west) into the U.S. to manufacture, and leave the burden of Canadian indebtedness to the farmer, then the Government probably is taking the right course.

PREPARING FOR PRODUCTION

By J. D. Davies

Alberta Foundry & Machine Co., Ltd., Medicine Hat

We are just starting operations in the implement business and are not yet quite familiar with conditions. In our regular business our experience of manufacturing as regards labor, raw materials and general operations has been most satisfactory. We are not pushing production now, as we are

A National Obligation

$55,000,000 went up in fire last year in the Dominion of Canada—physical loss only in the form of buildings, industrial plants, etc. The intangible loss, the value of the priceless records and documents that went up with this appalling material forfeit—records that, once gone, are gone forever—is beyond all computation.

Records are Irreplaceable

Physical property can be restored to its original condition—can even be improved upon. But the vital records—records which a business life-time has built up—records which form the foundation of your business—upon which your business is built and *grows*, cannot, in case of loss, be retrieved.

Records Worth Keeping are Worth Protecting

You put time, effort and thought into the preparation of business records—you employ a staff to keep them up—you place a high money value on them. Is it logical then, is it good business to leave them unprotected—liable to total extinction, you know not when.

A Record Safe Means Protection

What an insurance policy is to your buildings and physical property, a Record Safe is to the intangible assets of your business—your records and business documents. And it has this additional salutary feature: that though physical property may be wiped out, entirely, a Record Safe protects and guarantees the safety of those records that are always considered as constituting a "going concern."

Fire Protection an Immediate—a Vital Question

The question of protection against loss—both of your physical property and the intangible assets of your business—but the latter more importantly so—is a vital one now, when waste of any kind is a public dereliction—adequate protection is in short, nothing less than a national obligation.

Delay May Bring Serious Consequences

Consider well this question. Then take immediate steps to provide the protection that the value of your business records and documents warrants. Any "Office Specialty" representative will be glad to tell you about the new fire resisting Record Safe—explain the double wall dead-air space feature, tell you the advantages of the light but essentially solid construction—and show you how a combination of filing units to contain your various records may be stacked in "Office Specialty" Record Safes.

THE OFFICE SPECIALTY MFG. CO., LIMITED

Home Office NEWMARKET Canada

Filing Equipment Stores also at:

Montreal Ottawa Halifax Hamilton Winnipeg
Regina Edmonton Vancouver



Illustration shows "Office Specialty" fire resisting Record Safe with stack of filing sections for various kinds of records. Roller shelves at bottom accommodate account books ledgers, etc.

OFFICE SPECIALTY

LABOR SAVING OFFICE DEVICES — "Y and E" — TIME IS MONEY

FILING SYSTEMS

preparing all our new tools, preparatory to production in the summer.

The question of export has recently come up, and we have been asked to advise if we can manufacture tractors for export to Great Britain and France, but we think our proper market is Australia, leaving Great Britain and France to eastern manufacturers. We are optimistic regarding the outlook in Western Canada and are making plans to enlarge our factory next summer.

An Ontario Manufacturer.—"Since midsummer we have been quite comfortable as to labor, but the raw material situation has been getting worse and has become quite serious. Our general operations are still about normal, but this cannot continue much longer unless the raw material situation improves.

"We believe that farmers are now prepared to buy and use better grades of implements than previously. Prices are in rather a precarious position and certainly cannot go any lower. Credits and collections are good. We look for increased business. In fact, at present the only question is as to our ability to manufacture the goods for orders which could be secured. We expect the demand to exceed the supply for the coming season but after that supply would probably equal the demand."

AWAITING DEFINITE ACTION ON TARIFF

By Tractor Manufacturer

Manufacturing conditions with regard to labor have been most unsatisfactory all year on account of labor troubles. We have been more successful than some others, in as much as we have always maintained an open shop, and therefore had some employees who stuck by us and were the nucleus for a new organization. We are not really on a manufacturing programme and cannot plan on one, on account of the existing orders in council on the production of tractors, permitting them duty free under $1,400.00 in value. Our entire attention at present is devoted to jobbing work in all departments, and you will realize that this does not permit our planning for future production. In a nut-shell, our policy is that of marking time on our own lines with a fill-in policy of jobbing work, awaiting definite action as to the tariff.

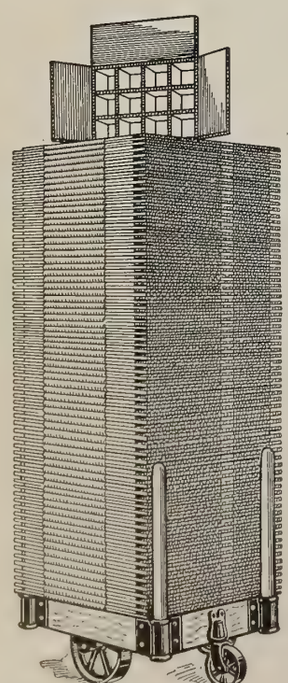
Milling Industry

(*Continued from page* 199)

jurisdiction embraces the fixing of prices for export and domestic markets. The prices fixed have not been satisfactory to the mills—being too low. The Government regulations, however, have in the main been fair. We believe the Canadian Wheat Board desire to do what is right by Canadian industries.

Production for the year 1919 will compare favorably with 1918. We believe our production will be somewhat in excess of 1918.

No one can foresee the course of prices when the world's cereal markets are decontrolled. Canada is in a favorable position to compete in the world's markets from a point of proximity to the consuming centres in Europe, and with an abundance of cheap water power available for mills. Labor will no doubt be secured at lower rates in England, the Argentine, Russia, and Germany than in Canada, United States and Australia. This fact will no doubt have some effect upon the Canadian milling industry. On the other hand we produce in Canada only, what is known as "Hard Spring



OUR SPECIALTY
FOLDING CELLBOARD
FREIGHT BOXES

Cellboard is the proper name for what is commonly called corrugated board

Established 1909

ADAMS CELLBOARD COMPANY

MANUFACTURERS OF FIRST QUALITY
SHIPPING CONTAINERS AND CORRUGATED PAPER

IMPORTERS OF
GUM SODA AND SEALING TAPES

Our board is the thickest on the market. Our capacity is a carload per day

We desire to have your samples or measurements to quote on when you are considering placing an order

5 TO 21 DEFRIES STREET AND DON ESPLANADE TORONTO

GRACE & CO., Limited

MONTREAL - CANADA

IMPORTERS

Hides, Skins, Leather, Tea, Coffee, Cocoa, Spices, Rice, Tapioca, Oils, Chemicals, Burlaps, Rubber, Kapoc, Tanning Materials, Naval Stores, Gums, Greases, Shellac

EXPORTERS

Pulp and Paper Products, Flour, Oats and Grain, Iron and Steel, Lumber, Machinery, Sugar, Grain and Flour Bags, Fertilizers, Boots and Shoes, Textiles, Canned Goods, Cement, Carbide, Paints and Varnishes

Correspondence solicited with Canadian manufacturers interested in importing raw materials or exporting Canadian manufactures.

LONDON NEW YORK LIVERPOOL CALCUTTA
RIO DE JANEIRO LIMA TOKIO SHANGHAI SAN FRANCISCO
VALPARAISO CUBA JAMAICA BUENOS AYRES SANTOS
STOCKHOLM BARCELONA GENOA PARIS

ORDER NOW

We are convinced that there is a great future ahead of our country (Canada). We believe the Manufacturers of Canada are going to be busy.

We not only believe that Canada will hold her own, but in the march of progress will greatly increase her manufactures. Showing the confidence we have in the future, we have completed a modern three-storey structure which will greatly increase our manufacturing space.

We would ask our friends to forward all their orders for

CAP SCREWS
SET SCREWS
ENGINE STUDS
COUPLING BOLTS
NUTS (every variety of finish)
TWIST DRILLS
REAMERS
FILES, Etc.

With our increased facilities we will be able to give good attention to our customers' requirements

John Morrow Screw & Nut Company, Ltd.

INGERSOLL - CANADA

Wheat," which this year is very scarce and which in the years to come will always command a market. Our only competitors for the hard varieties of wheat are the United States with only a limited area, and Russia, where conditions no doubt will remain so unsettled that for years to come they will be unable to effectively compete for export. There is an over-production of flour in Canada, Canadian mills having a total capacity to-day of approximately 25,000,000 barrels per year, 8,000,000 barrels of which only is consumed in the domestic markets.

THE WHEAT SUPPLY DIFFICULTY

By a Prominent Miller

Head of Large Canadian Milling Company

During the past year there has been no material lack of labor, except during the strike at Winnipeg. Our experience has been that common labor has not been as efficient as formerly. Mills were only partially employed because of lack of export demand during part of the time, and shortage of wheat supplies.

There were no outstanding features either in the domestic or export trade, excepting that prices and supplies were regulated through Government agencies, which, of course, was quite unusual, and which we hope may not be extended beyond the present crop year. Production for 1919 would be very much the same as that of the previous year. While there have been no new mills erected, considerable enlargement has taken place in many of the mills.

The outlook at present is, in my opinion, fair, as we look forward to a fairly steady demand for export. What is concerning eastern mills most at the present time is the possibility of getting sufficient supplies of wheat for their requirements. The Wheat Board have large commitments for wheat, and have not permitted the mills to receive shipments for some time past. A limited volume was permitted to move after Dec. 20th, but nothing like sufficient to keep the mills running full time.

The American Grain Commission have removed the embargo against the importation of Canadian wheat solely to help out their own mills, who are short of hard spring wheat; but it is hard to believe the Wheat Board will permit wheat to go to American mills when they are short for their own commitments in Europe and the Canadian mills are not fully supplied.

It is estimated now that the balance of wheat available for export would not be more than sufficient to keep mills in Canada running, providing necessary work for their employees and supplies of mill offals for our live stock and dairying interests.

BREAKFAST FOOD EXPORTS GROW

By R. K. McIntosh

The Corn Products Co., Ltd., London

We have not experienced any marked difficulty in getting sufficient help during the past two years. We do find, however, that the general efficiency of the help we are getting now is from 20 to 25 per cent. lower than that previous to the war. The supply of grain has been ample and the quality good. Of course, it must not be forgotten that we do not use any wheat, using only white corn. General operations have only been fair.

Our business has not been affected by Government regulations or restrictions during the past year. Previous to that it was very seriously restricted. Transportation and shipping conditions have been away below the average, with some exceptions. At the present time we are experiencing considerable difficulty in getting shipments cleared from the port of New York. We are badly hampered in getting G.O.C. licenses, and in getting shipments cleared; so much so, that we have almost decided to discontinue shipping to South America until such time as we can get our shipments taken from a Canadian port. We are shipping considerable to Curacao, D.W.I. At this time there is no steamship company operating between Canada and the Dutch West Indies.

We have experienced considerable increase in production, and exports to the United States and South America have increased considerably.

We anticipate a big production during the coming year. The demand from foreign markets is bound to be heavy, particularly for Canadian-made goods. Indications are that prices will not be lower on this crop. We are figuring on making some additions to increase our output on certain lines.

Automobile Industry

(*Continued from page* 184)

a great many enquiries and are hoping to be able in the very near future to establish an export business throughout the British possessions.

The outlook is very bright for the coming year, and we feel that the demand will more than likely keep up, but the tendency of prices will be considerably upward. We have considerably enlarged our capacity, and are now operating upon a basis of 1,000 motor trucks per year, which we hope will be continued during the year 1920 and, should the demand require it, we will be in a position to increase our output.

We have been striving to make or buy everything possible which goes into the manufacture of our motor trucks, in Canada, but in some instances it has been impossible to procure same in this country, as they are not being made here. I am referring principally to engines and axles.

EXPORT BUSINESS HAS BEEN RAPIDLY INCREASING

By A. Van Schlegell

Vice-President, Hupp Motor Car Corporation, Detroit

As our Canadian factory is not in operation at the present time, and probably will not be until a little later in the year, we cannot give you much information that would be of value for compiling statistics for Canada. We can, however, state that market conditions as regarding demand are unusually good. In other words, we have orders that will take our factory production for the next three months. The export business has been rapidly increasing in every part of the world. The outlook, so far as we can see, is for continued business for at least the coming year, and we hope to be able to continue the present car, although the question of price is one on which we are very much unsettled. Material and labor costs are increasing so rapidly that it is very doubtful if motor car manufacturers will be able to continue their present lines for very long.

WILL SELL ALL TRUCKS THEY CAN BUILD

By W. B. McLean

President, Mapleleaf Mfg. Co., Limited, Montreal

We have had no difficulty in regard to the supply and efficiency of labor so far, but find materials very hard to get owing to disturbed conditions at the factories and in transportation.

We are endeavoring to have all the parts possible made in Canada and have taken on an expert to develop that end of the business.

We find a demand for trucks so far greater than we can supply, and the tendency towards the lightest and heaviest models—that is, our 2 and 5-ton trucks. Price tendencies are strongly upwards owing to increased costs. We have quoted on some large orders for export, but I have not closed any of this business as yet.

The outlook to us is that we will be able to sell all the trucks we can build or obtain parts for. As we have not got

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properly going yet in this business, we have not made arrangements for any large capacity. At present we make arrangements to put out about 200 trucks per year.

Packing House Industry

(*Continued from page* 202)

curtailed shipments from this country. Since the signing of the armistice the trend of prices has been generally lower.

We do not believe there would be any marked expansion in production through enlarged capacity, as during the war there was considerable expansion in the capacity of packing houses, which are now in position to take care of present production of live stock. The production of live stock is not adequate to take care of the demand, especially on hogs. The present tendencies are not favorable for increased production of hogs with the trend of prices lower and the price of feed remaining on a high level.

The export business will continue to be a factor in our industry for some years to come, as live-stock in European countries has been depleted to a large extent and these countries are naturally dependent on North and South America. In addition to the above, there is no question but that the European exchange situation is having an influence on exports of all products from North America and no doubt if it was more nearly on a parity, increased exports would result.

GENERAL REVIEW OF PACKING HOUSE INDUSTRY

By R. D. Morrison
The Harris Abattoir Co., Limited

The packing-house industry has experienced a very high labor turn-over during the past year, but the supply of labor has been fairly plentiful throughout the year.

The report of deliveries of cattle at the five chief live stock centres in Canada, viz.—Montreal, Toronto, Winnipeg, Edmonton and Calgary—shows that there has been a plentiful supply of cattle coming forward throughout the year. For eleven months ending Nov. 30, 1919, there were 1,076,482 cattle received at these markets as against 575,675 for the same period in 1918.

The hog receipts at the five principal Canadian markets for eleven months ending Nov. 30, 1919, show 1,034,177 hogs as against 1,037,555 hogs for 1918. This shows a slight decrease in receipts which would lead one to believe that there has been a correspondingly slight decrease in hog production throughout the year.

For eleven months ending Nov. 30, 1919, receipts of sheep and lambs were 612,999, as against 371,648 for the same period in 1918, or an increase of 54.9%, and readily reflects an increase in the population of sheep and lambs. This is one of the most hopeful signs in the Canadian live stock situation.

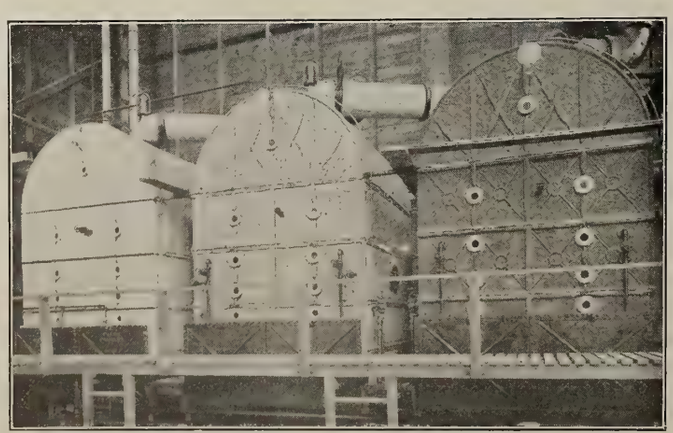
The packing house industry has been subject to greater Government regulations and restrictions than any other existing industry. In January the Canada Food Board closed its campaign for the curtailment of meat consumption in Canada. This was the immediate cause of a largely increased expansion in domestic consumption of meat. In September the Canadian Government appointed a Board of Commerce to enquire into the causes for high prices, and as a result the Board set a maximum price at which packing houses could sell Canadian pork products in Canada. This maximum price was passed on by the Board without having obtained the advice of experienced packing-house men, and in its first form was totally unfair and impossible of application.

Central European countries were, before the war, very heavy buyers of meat and meat products. During the past

(*Continued on page* 258)

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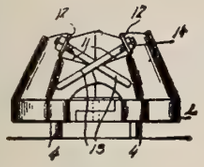
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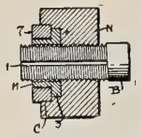
BOILERMAKERS, MACHINISTS, FOUNDERS AND DESIGNERS

VULCAN IRON WORKS LTD
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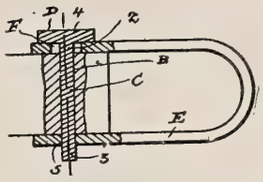
PATENTS FOR SALE



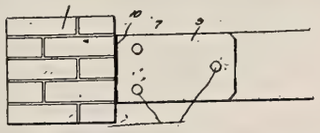
HORSE SHOE, formed of sections connected at their forward ends to provide relative movement means for fastening the shoe to the hoof, comprising of plates secured to each section in overlapping relation. Adapted to engage and conform to the sides of the hoof and having means for drawing together certain of the plates of opposite sections to bind them all to the hoof. Patent rights for sale. Christ T. Fortney, R. 1, Box 49, West Prairie, Wis., U.S.A.



NUT LOCK, a simple and practical device, is strong, durable and absolutely reliable, one that has been thoroughly tested. It may be manufactured and placed on the market at a minimum cost with a reasonable profit. Patent rights in the Dominion for sale by T. S. Hanes, Kanauga, Ohio, U.S.A.



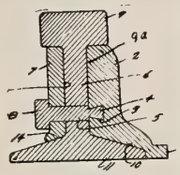
DRAFT GEAR, easily attached or detached, strong, durable and efficient in use. This simple and efficient device is one which should find a very ready market and the inventor, John Woelfle, Winterbourne, Ontario, Canada, is desirous of entering into negotiations with a reliable manufacturer with a view to arranging the manufacture, or disposal of his interests. Further particulars may be had on request.



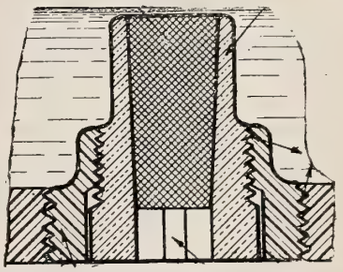
JOIST ANCHOR.—A strong, durable and reliable anchor, easily applied, and is one which, in view of its few parts and absolute reliability, should find a ready market. The device is a time and labor saver as well as a money saver. Patent rights are for sale by C. F. Hall, Box 136, Athens, Illinois, U.S.A.



SPARK PLUG, of simple construction, and one which may be manufactured and placed on the market at a cost that will compete with any of the present devices. This device embodies all that the words Spark Plug stand for, and WILL IGNITE. No more "hit and miss." The device has been thoroughly tested and is beyond question of experiment. Patent rights are for sale by R. Champlin, 1028 Pacific Ave., Bremerton, Wash., U.S.A.



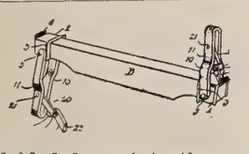
RAIL JOINT, which consists of the combination of abutting rails having a plurality of perforations in their ends, and a pair of fishplates, one of the fishplates being provided with dovetailed groove extending throughout its entire length; the other fishplate being provided with a plurality of squared perforations. Bolts each formed with a body portion square in cross section and with a wedge-shaped terminal for insertion into said perforations and said dovetailed groove. Patent rights are for sale by Ludwig Trager, 2135 South 9th Street, Lincoln, Nebraska, U.S.A.



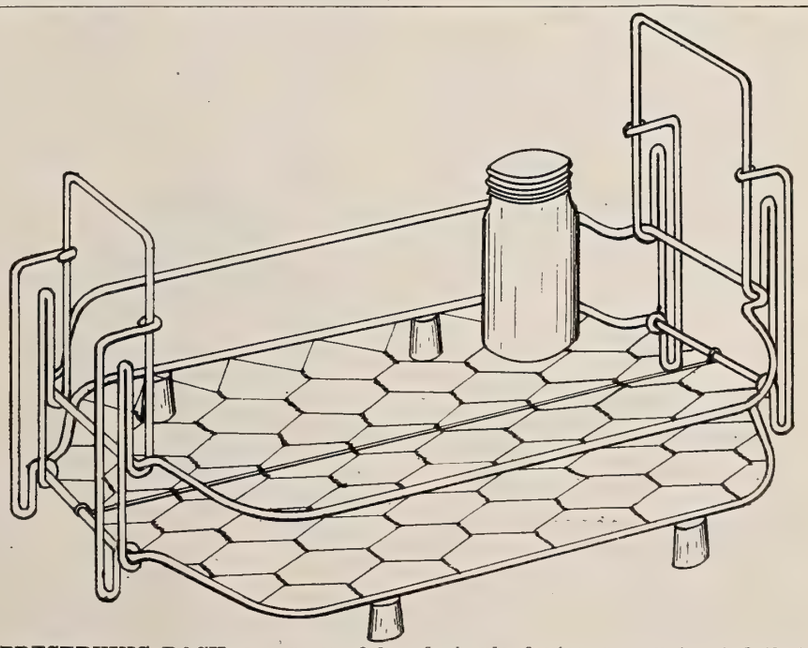
BOILER FUSIBLE PLUG, eliminates the difficulties usually found with this type of plug, can be left in the boiler for a reasonable period. The bushing once being properly fitted becomes part of the boiler and remains in the fire sheet during the life of the boiler. The thread on the plug and in the bushing are **up in the water space;** hence cannot **burn hard and tight.** Plug can be easily removed for examination and screwed back at any time with the same ease as a wash-out plug on the outside of boiler. Patent rights for sale by Wm. F. Ray, Samoa, Cal., U.S.A.



ROPE COUPLER, simple in construction, strong, durable and efficient in use, easily attached or detached. The device is one which, in view of its simplicity, convenience and cheapness to manufacture, should find a ready market. The inventor, Mr. H. A. Lowen, of Gretna, Manitoba, Canada, is desirous of arranging the manufacture of this device in the Dominion or the outright sale of his patent. Further particulars may be had upon request.



VEHICLE STANDARD, foldable and pivotally connected with the end of the bolster so that it may be folded down into the same when loading and unloading or may be stood upright and braced in upright position to carry the load. Is particularly applicable to wagons and sleds where heavy loads have to be lifted completely over the upper ends of rigid standards, for instance in loading logs, rails or the like. The device is strong and durable and well adapted to stand the strain and usage to which articles of this nature are ordinarily subjected. Patent rights for sale by L. P. Fry, Horseshoe Bend, Idaho, U.S.A.

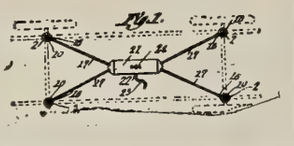


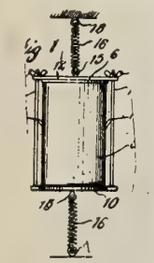
PRESERVING RACK, a very useful and simple device, so constructed that it may be folded up so as to be packed in a small compass when not in use. This simple and ingenious device is one which in view of its convenience and cheapness of manufacture would find a very ready market. This device may be manufactured at a cost so small that it could without doubt be placed in every household. Patent rights for sale by Johnson Bros., of Boissevain, Manitoba, Canada.

HAROLD C. SHIPMAN & CO., Patent Attorneys, Ottawa, Canada

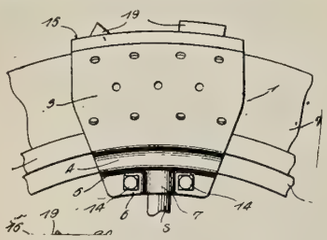
PATENTS FOR SALE

PNEUMATIC SHOCK ABSORBER AND AIR COMPRESSOR. — For use upon automobiles and other vehicles for absorbing the shocks, and also acting as an air compressor whereby air is supplied to the tank which can be used for inflating the tires; operating horn or other signal; operating a pneumatic engine and the like. This ingenious device is truly effective in use and should prove an attractive proposition to automobile manufacturers. Patent rights for sale by Mr. Wm. H. Holden, B. W. & M. Bldg., Idaho Falls, Idaho U.S.A.

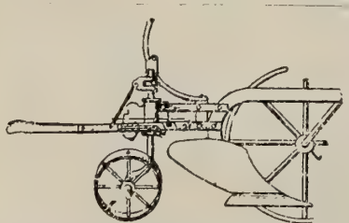




CHURN. — Resiliently supported so that it will remain in motion after it is moved manually against the tension of resilient supporting means, thus enabling the churning operation to be practised with the expenditure of minimum power and attention. The device is of special construction, is sanitary and avoids the use of absorbent material and injurious metals which may contact with the cream during the churning operation. Patent rights are for sale by Samuel H. Sandefur, 522 N. Pine St., Nomato, Oklahama, U.S.A.

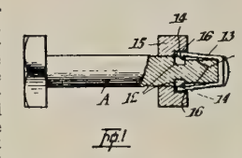


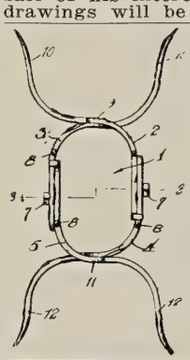
TIRE ARMOUR, may be manufactured and used in connection with any tire now on the market. This device has been thoroughly tested and is beyond question superior to any of its kind. May be cheaply manufactured and placed on the market at a price well within the reach of every auto owner. The inventor is open to negotiations for the manufacture of this device or out-right disposal of his patent. Full details may be had by applying to the inventor, Mr. Gottlieb Wieland, St. Cloud, Minnesota, U.S.A.



ATTACHMENT FOR SULKY PLOWS— Does away with the necessity of lifting the plow out of the ground by hand when it encounters an obstruction and is especially convenient when moving the plow from the field to the road. The device is easily operated, remains firmly in its raised or lowered positions, the handle being foldable so as to render the plow compact for storage. Canadian patent rights for sale by Mr. John Reimers, Box 13, Millard, Nebr., U.S.A.

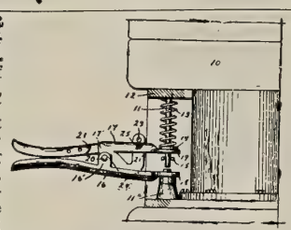
NUT LOCK.— An inexpensive, efficient and absolutely reliable device; may be cheaply manufactured and placed on the market at a cost which will not only compete with the present price but which will, in view of its simplicity, efficiency and durability, control the market. The inventor, Mr. George Boychuk, Box 93, P.O. Bienfait, Sask., Canada, is desirous of arranging the manufacture of this article in Canada, or is open to negotiations for an outright sale of his interest. Specifications and drawings will be supplied on request.

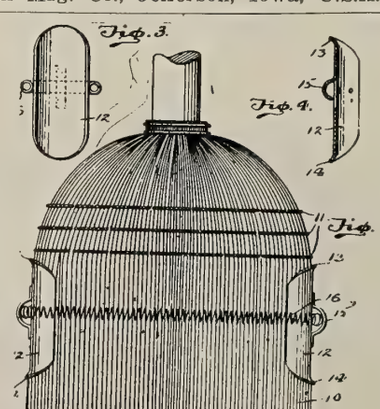




ANIMAL - POKE. — An inexpensive and ingenious device which is strictly humane, allowing the animal perfect freedom for grazing, but inflicting painful injury should the animal approach a fence with the object of pushing it down or jumping. The inventor, Mr. Manuel H. Teeter, McWillie, Okla., U.S.A., offers patent rights for sale.

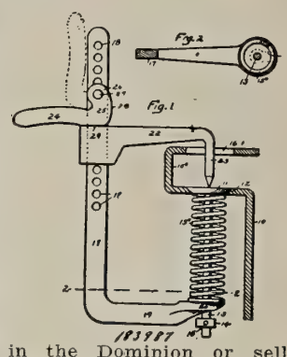
TOOL FOR REMOVING VALVE. —Not one of the many, the one only real, efficient device for removing valves, strong, durable, simple and efficient in use, may be cheaply manufactured and placed on the market at a price that will not only compete but which will astonish. Patent rights are for sale by Mr. C. O. Throp, c.o. American Mfg. Co., Jefferson, Iowa, U.S.A.

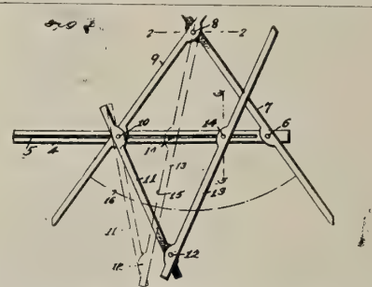




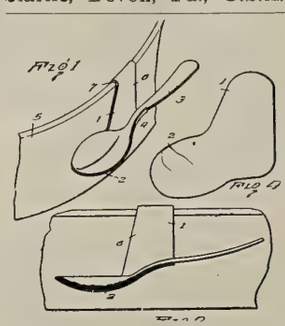
BROOM BRIDLE.—A simple, inexpensive and convenient device, which is guaranteed to double the lifeof any broom. The very thing for which the householder has been looking, and one which will, in view of its simplicity, efficiency and durability, find a ready market. The inventor, Mr. John E. Hewett, Wilmington, North Carolina, U.S.A., is desirous of getting in touch with a reliable manufacturer with a view to arranging the manufacture of this invention in the Dominion or negotiations for an outright sale.

VALVE REMOVING TOOL. —To manufacturers interested in a real thing, I will gladly forward full details of the most simple and efficient valve removing tool ever invented. I desire to arrange for the manufacture of this device in the Dominion or sell my patent. Would be glad to communicate with manufacturers interested in marketing such a device. For further particulars, apply to Mr. C. O. Throp, c.o. American Mfg. Co., Jefferson, Iowa, U.S.A.

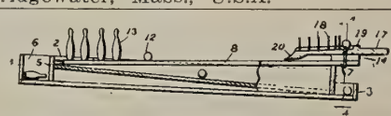




ANGLE TRISECTOR, which is, without doubt, superior to any that has yet been brought to the attention of the public, and which should control a large market. This trisector is simple, convenient, absolutely efficient and protected by broad and sound patent. Patent rights are for sale by J. Alexander Clarke, Devon, Pa., U.S.A.



KITCHEN & TABLE ARTICLE S. —A simple and convenient spoon-rest, adapted to be arranged over the marginal edge of the receptacle such as a bowl, pan, etc., whereby the spoon, after being used, may be held in a convenient manner. No more 'fishing' for spoons out of scalding fluids; no more burned fingers. This device is one that will, without doubt, find a very ready and uncompeted market. Can be cheaply manufactured and placed on the market at a minimum cost with a reasonable profit. Patent rights are for sale by Mrs. Albina J. Cunningham, Bridgewater, Mass., U.S.A.

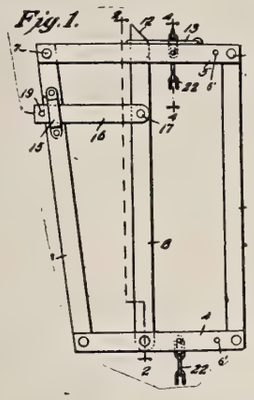


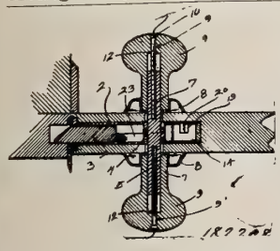
GAME-BOARD.—An inexpensive yet fascinating game. It is automatic and represents all that a game stands for; has novel feature whereby the balls used will return to the player. Patent rights are offered for sale by the inventor, Mr. Wm. Bauch, Route No. 2, Box 79, Blue Island, Ill., U.S.A.

HAROLD C. SHIPMAN & CO., Patent Attorneys, Ottawa, Canada

PATENTS FOR SALE

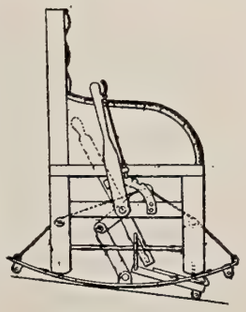
COW STANCHION. — A convenient and simple device, but one which is strong and durable, and adapted to withstand the rough usage to which articles of this kind are subject. A real comfortable stanchion which is absolutely humane, allowing the animal freedom of movement yet securely fastening and holding the head against withdrawal. The device is one which, in view of its quick, adjustment and cheapness of manufacture should find a ready market and prove an attractive proposition. Patent rights are for sale, Dan D. Schafer, Montgomery, Mich., U.S.A.

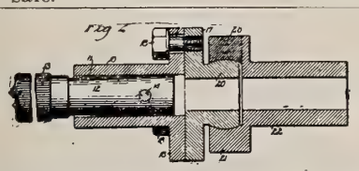




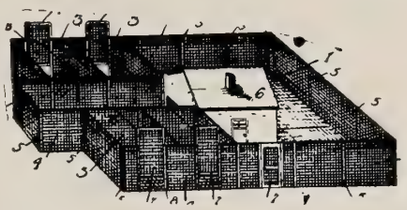
LOCK.— Having only three parts and two springs inside of the lock. Knobs fastened with counter sunk screws into the ends of the spindle. The device is one which, in view of its simplicity, cheapness of manufacture and sturdiness, should prove an attractive proposition. The patent holders, Messrs. Leusley & Eubank, Huntsville, Mo., U.S.A., offer patent rights for sale.

CONVERTIBLE ROCKING CHAIR.— Convertible into a rocking, stationary or rolling chair. Easily operated by occupant. The device offers something for which there is a ready and uncompeted market. May be cheaply manufactured and placed on the market at a reasonable profit. The inventor, Mr. Wm. Drosdowet, Box 85, Sifton, Man., offers patent rights for sale.





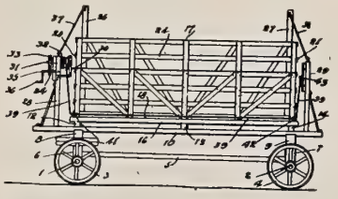
ADJUSTABLE FLOATING REAMER HOLDER.—The very thing for which the mechanical world has been looking. Having means to provide adjustments of the reamer holder which, together with the floating of the reamer, will enable accurate reaming to be obtained. Canadian patent rights are for sale by Robt. Railton, 391 High St., Valley Falls, R.I., U.S.A.



ANIMAL TRAP.—An ingenious device; may be cheaply manufactured and placed on the market at a minimum cost with a reasonable profit. The device is equipped with a storage or bait compartment having trapping devices whereby several animals can be caught at the same time. The inventor, Mr. J. F. Armand Cauvier, Grande Riviere, Gaspe County, Que., is desirous of getting in touch with a manufacturer with a view of disposing of his interests or arranging manufacture.

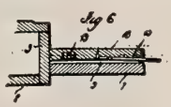
SCREW DRIVER having a special screw-holding attachment which is simple and absolutely efficient in use. The device may be manufactured separately for attachment to any type of screw driver and is something which should prove a real seller when properly introduced. The inventor, Mr. Otter A. Haufe, 240 Maple St., Secaucus, N.J., offers patent rights in the Dominion for sale.

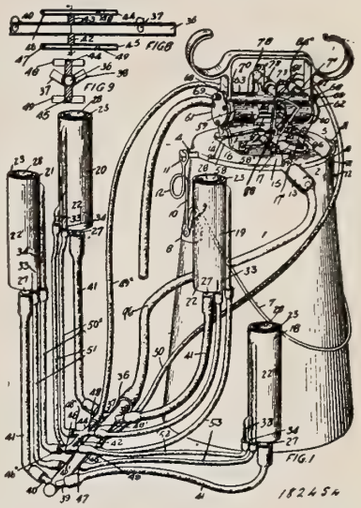




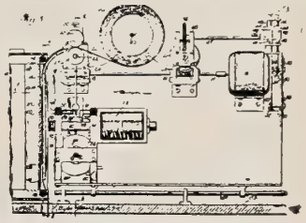
STRAW SPREADER which will increase the crop returns from $5 to $7 per acre. Really worth while machine which, in view of its simplicity, durability, and cheapness of manufacture, can be placed on every farm in Canada. The invention has been thoroughly tested and is beyond question of experiment, is especially useful in the prevention of winter killing of wheat, soil blow or washing, conserves moisture and makes tough, sticky soil much more friable. Patent rights in the Dominion are for sale by Mr. Gustav O. Sollom, Reynolds, North Dakota, U.S.A.

WEATHER STRIP. —Providing an airtight connection between the door and the door frame, and at the same time cushioning the door frame so as to prevent the breaking of glass when the door slams. No matter how badly the door may warp or be warped, the strip will automatically adjust itself to the shape taken. May be cheaply manufactured; is easily installed, and may be sold at a tempting profit. Patent rights are for sale by Messrs. Decker & Smith, Fremont, Ohio, U.S.A.

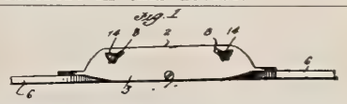




MILKING MACHINE.—An efficient and reliable machine which has no injurious effects on the animal. Is easily operated and absolutely satisfactory in use. Easily cleaned and assembled. The most satisfactory and durable device on the market. The inventor, Mr. W. J. Armes, 315 Bold St., Hamilton, Ont., is desirous of getting in touch with a reliable manufacturer with a view of disposing of his interests, or arranging manufacture of his invention.



TIMING DEVICE, having for its object the timing of intermittent operations of different kinds and means for insuring definite intervals between operations, also means for varying the duration of such intervals and for continuing the intermittent operations indefinitely, also for limiting the number of operations and for rendering the operation of the apparatus with which the invention is connected inoperative after the desired number of operations has been accomplished This device is one which is worthy of careful investigation and the inventor, Mr. W. H. Fribley, Raymond, Wash., U.S.A., is desirous of co-operating with a reliable manufacturer with a view to negotiations for manufacture or the disposal of his interest in this device.

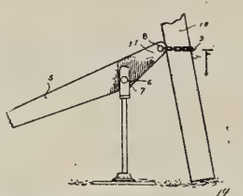


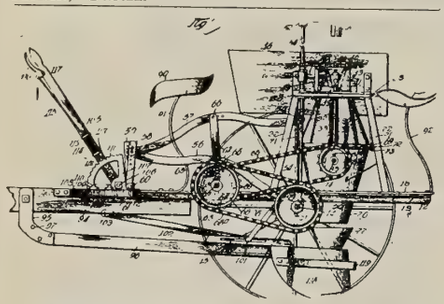
BELT FASTENING FOR MACHINERY AND THE LIKE.—A real, reliable belt fastener. The very thing for which the manufacturing world have been looking, easily attached or detached, simple and efficient. With this fastener the slack of the belt may be taken up at any time. No slipping or tearing of belts, so constructed as to be absolutely reliable, will securely hold the ends of the belt in relation to each other without reference to the strain placed thereon incident to the use upon pulley wheels. Patent rights are for sale by Mr. C. E. Queen, Rock Cave, West Virginia, U.S.A.

HAROLD C. SHIPMAN & CO., Patent Attorneys, Ottawa, Canada

PATENTS FOR SALE

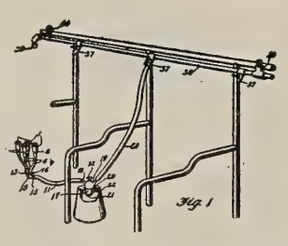
FENCE POST PULLER; easily operated and will pull posts of different diameters. May be taken apart and easily packed in a small compass when not required for use. The device is one which in view of its simplicity and cheapness with which same may be manufactured, should prove a good seller. Patent rights for sale by Ole Olson, R. R. No. 3, Canby, Minn., U.S.A.

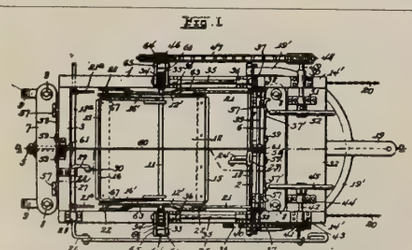




POTATO PLANTER, just what every potato grower needs. TWO MACHINES IN ONE, cuts and plants at the same time. Is the biggest time and labor saver ever put into a potato field, plants potatoes of all sizes, and furrows, cuts, covers and makes out the next row all at the same time. Potatoes can be planted just as they come from the cellar, no more sorting. This machine is, without doubt, the most efficient device that has yet been brought to the attention of the public. Patent rights for sale by J. P. Davenport, Wheaton, Ill.

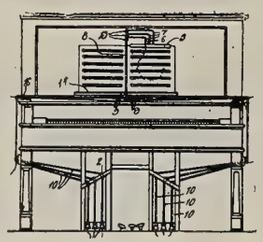
MILKING MACHINE, easily operated, simple, few parts, and consequently easy to clean. Durable and efficient in use, noiseless, economical, positively sanitary, which means better milk. Has unlimited capacity and gets all the milk. Is gentle, harmless and economical. Patent rights for sale by S. B. Harner, R. R. No. 3, Box 21, Xenia, Ohio, U.S.A.

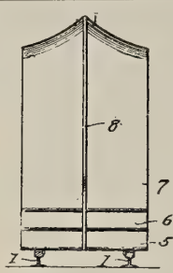




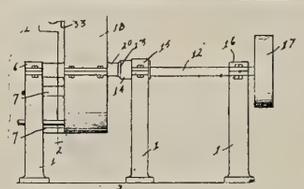
DUMP SCOOPS, specially adapted for road repairing and building, easily operated, strong and durable. One of the most efficient devices of this nature on the market. Easily operated by the ordinary farm tractor, both forward and backward, and has automatic dumping means, being operatable from the engine when the latter occupies a stationary position. Patent rights for sale by George W. Harkins, R. D. No. 1, Harveys, Pa., U.S.A.

MUSIC LEAF TURNER, easily attached to the foot pedal of any piano, so that it may be readily worked by the performer without any loss of time. May also be used by orchestras on their ordinary music stand. Simple in construction, highly ornamental, and may be cheaply manufactured and should prove an attractive proposition in view of the enormous market for such a device. Patent rights for sale by E. M. Barnes, 517 No. Water St., Wichita, Kansas, U.S.A.

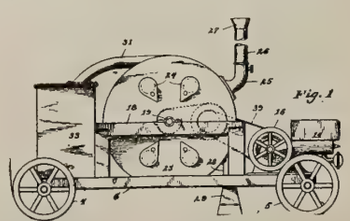




SNOW PLOW, mounted on wheels, and having parallel spaced blades carried in an inclined position, the front extremities of the blades being shorter to allow the uppermost thereof to remove a layer of snow in advance of the intermediate and lowermost blades. The rear extremities of the blades, being curved upwardly towards their relative centres into engagement with a portion of the partition which is arranged intermediate to the blades, so as to form an abutment for the snow, causing the same to be deflected outwardly. Patent rights for sale by John D. Morris, R. F. D. No. 1, Waynesboro, Va., U.S.A.



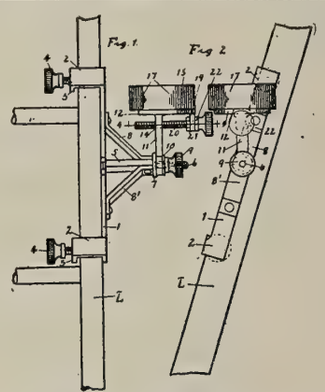
ROTARY ENGINE.—Absolutely no more waste of power, having overcome dead centre. No loss of energy, which means not only a vast increase of power but a corresponding saving of fuel over the old-style steam engine. Is simple in construction, powerful and durable. Patent rights for sale by James C. Thompson, Golconda, Ill., U.S.A.



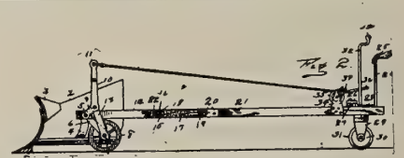
MACHINE FOR DESTROYING INSECTS, which might also be used as a vacuum cleaner for taking up dust or the like. It is simple and efficient in use, strong, durable and so constructed that it may be easily moved from one room to another and to and from a porch or the like. The device is driven by a suitable motor. Canadian patent rights are for sale by James W. Lemon, Hardy, Ark., U.S.A.

LOOSE SHEET HOLDER.—A very simple device, easily operated and is especially adapted to school work and stenography, as it can be opened and closed quickly and stands up like an easel. The holder is also particularly useful in other office work as well as for travelling salesmen and others. Patent rights for sale by George E. Gates, Comstock, Michigan, U.S.A.

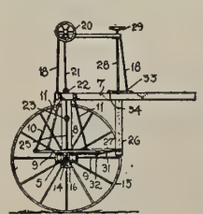




BUCKET SUPPORTING BRACKET. Holds the painter's bucket upright and close to hand on rope or ladder. Quickly adjustable to any angle. All steel, indestructible, saves time, paint and patience. The device is one which, without doubt, will find a ready market in view of its cheapness of manufacture, simplicity of construction and convenience in use. Patent rights for sale. F. D. Bouchard, Rocky Ford, Colorado, U.S.A.



SNOW PLOUGH, simple in construction, easily operated, and provided with special means for manipulations and is so constructed that the plough may move along in front of the horses or may be drawn in the ordinary manner. The inventor, A. H. Tallyn, of Benson, Illinois, U.S.A., is desirous of arranging the manufacture of his invention in Canada or sell his patent. Further particulars on request.

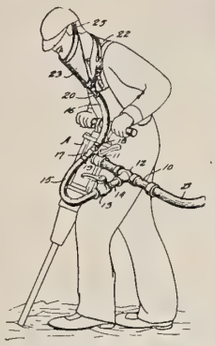


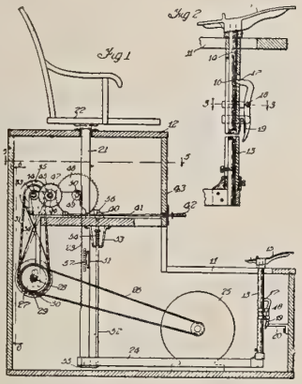
ROAD GRADER having improved steering means. The object being to provide an improved mounting of the supporting wheels and means for moving the same to various vertically inclined positions or angularly disposing the axis of rotation with respect to the line of movement of the machine, also to provide a wheel and adjusting mechanism to be employed in connection with a four or eight horse road grader whereby the draft on the animals may be greatly lessened by the proper adjustment of the wheels. Patent rights for sale by John W. Brannan, Imperial, Nebraska, U.S.A.

HAROLD C. SHIPMAN & CO., Patent Attorneys, Ottawa, Canada

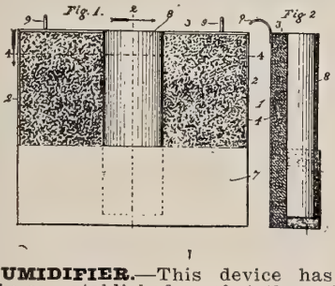
PATENTS FOR SALE

ROCK DRILL ATTACHMENT, specially adapted for face protection during the operation of rock drilling. Device consists of conical-shaped hood of flexible material combined with an air hose for conveying air under pressure to the worker. The flexibility of the hood permitting it to conform to the configuration of and fit snugly against the face of the wearer. The inventor, Mr. Aime Blanc, Aspen, Colo., offers patent rights in the Dominion for sale.



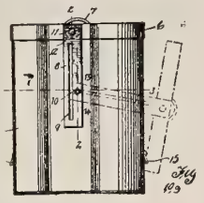


SHOE-SHINING CHAIR AND STAND which eliminates the trouble of climbing to the chair, no foot rests in the way, nothing to catch coats or dresses on when getting in and out of the chair, no danger of stepping on brushes, bottles or boxes when leaving the chair. Foot rests are comfortable and adjustable to suit the different lengths of legs. No pressure necessary to hold the foot on the rest. Canadian patent rights for sale by H. & H. Manufacturing Co., Elgin, Ill., U.S.A.



HUMIDIFIER.—This device has already an established market throughout Canada. The demand for this device has become so great that the inventor has found it impossible to handle both the United States and Canadian markets, and is therefore desirous of getting in touch with a real live manufacturer who is willing to develop and push this article in the Dominion. For further particulars and information, apply to Mr. E. G. Fairbanks, 6217-19-21 Wentworth Ave., Chicago, Ill., U.S.A. This device is without doubt the most efficient, economical and substantial of its kind, has been well liked wherever introduced. Correspondence from manufacturers interested is solicited.

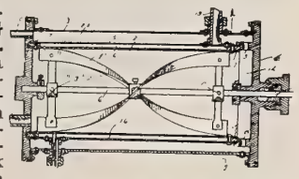
LOCK FOR RECEPTACLE LIDS, a simple and ingenious device which will securely fasten the lid of a receptacle so as to prevent the displacement of same. This device is strong, durable and efficient in use and may be manufactured for use at a very slight cost. The inventor, Mr. Albert J. Noel, Gary, Ind., U.S.A., offers patent rights in the Dominion for sale.



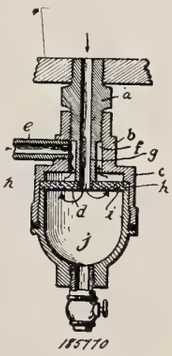


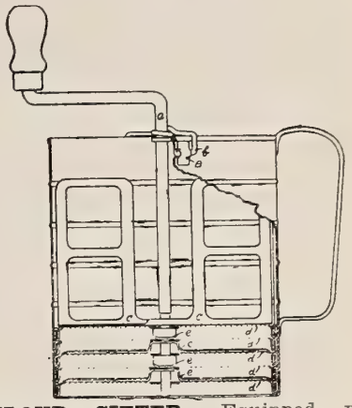
AUTOMOBILE SAFETY SIGNAL, easily adapted to any make of auto. Efficient, inexpensive and highly ornamental, avoids confusion and collisions. No diversion of the driver's attention from the machine is necessary with this signal, and consequently it eliminates the possibility of accidents. During the past year accidents due to traffic confusion were so great that it will without doubt become necessary for auto owners to adopt some signal device. Here is an opportunity for a live manufacturer, and the device is without doubt a sure thing. The inventor, Mr. D. R. Lashbrook, 119 E. Main St., Owensboro, Ky., U.S.A., is open to negotiations for the disposal of his interests or the manufacture of same on a royalty basis.

REFRIGERATING MACHINE. Having a double jacket, brine cylinder, with a self-contained expansion tank whereby a relatively greater cooling area is provided with a very small displacement in the cylinder, and having means for insuring the circulation of brine through said cylinder. Patent rights are for sale by Samuel R. Bell, Beaumont, Texas, U.S.A.

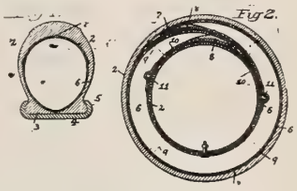


GASOLINE STRAINER.—Simple and absolutely reliable device. The strainer is of special felt material, and is superior to any of the present wire strainers. It does not clog, and there is absolutely nothing but pure gasoline or oils that can pass through the felt, which must, of course, be of proper material and adapted for the fluid to be strained. Never gets out of order, and can be easily and quickly attached to any machine already built. May be cheaply manufactured, and placed on the market at a price that will compete with any present devices. Patent rights are for sale by G. S. Hale, Tekoa, Wash., U.S.A.

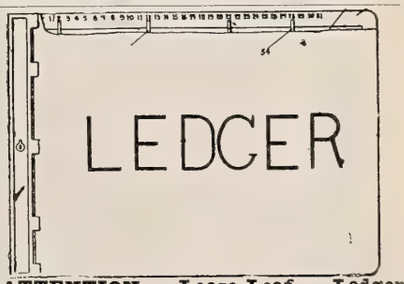




FLOUR SIFTER.—Equipped with multiple sieve, accomplishing five siftings of flour as quickly and easily as one sifting by the old method, thereby saving time as well as achieving better results. It is a well known fact that the more frequently flour is sifted the lighter and more fluffy it becomes and allows the air to become mixed, giving lightness in the process of baking, the result so much desired. The device is strong and durable; may be cheaply manufactured and placed on the market at a price which will compete with any of the present sifting devices. Patent rights are for sale by Mrs. J. E. Trice, 206 Wabash Ave., Wichita, Kansas, U.S.A.



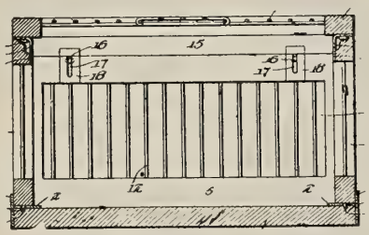
PNEUMATIC TIRE.—A real, honest to goodness puncture proof pneumatic tire. The tire that will stand up always under all conditions, roads and loads. The tire which will revolutionize tire construction. The greatest improvement since pneumatic tires were invented. Patent rights are for sale by Mr. Louis Wenzel, Jr., 404 Chestnut St., Pittsburg, Pa., U.S.A.



ATTENTION Loose-Leaf Ledger Manufacturers.—This accounting book facilitates the management of many accounts, where attention to the same is required at various dates according to the terms and conditions of the several accounts, to eliminate the losses and inconveniences incident to the lapses of memory in regard to obligations to customers, to devise a new system of accounting operable by comparatively inexperienced clerks and always accessible to the superior, which form of book is simple to operate and cheap to produce. Canadian and United States patents for sale, John Duchow, 319 St. James St., Montreal.

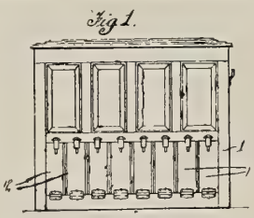
HAROLD C. SHIPMAN & CO., Patent Attorneys, Ottawa, Canada

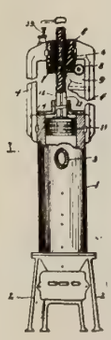
PATENTS FOR SALE



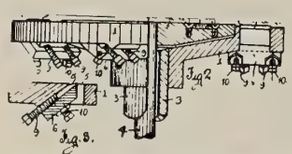
FOLDING CRATE, comprising a bottom having sides and ends hinged and slidably connected together, said hinges and sliding connection consisting of slotted plates having pivot pins slidable therein. The device is strong and durable, absolutely efficient in use and may be placed on the market at a minimum cost with a reasonable profit. Patent rights in the Dominion are for sale by A. Kroner, 300 No. Highland Ave., E.E. Pittsburgh, Pen., U.S.A.

BOTTLE DISPENSER, which consists of a refrigerator and means for serving bottled drinks quickly. If a customer desires any popular drink, simply open the small door on the front of the dispenser and the instant the door closes another bottle slips into place. The dispenser will handle eight different varieties of bottled drinks and have them all ready for prompt serving to trade. No opening of the ice-box and allowing the heat of the room to melt the ice, no more hunting around for any desired or particular variety. Always ready, always on hand. With the recent legislative action, the use of soft drinks is bound to increase and one of these machines can be placed in every reliable soft drink dispensary throughout Canada. Here is a proposition worthy of investigation. Patent rights are for sale by Mr. J. W. Berry, Greenville, South Carolina, U.S.A.





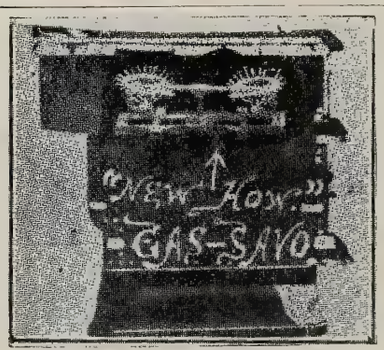
SOAP COOLER AND COMPRESSOR.—A strong, durable and efficient machine for the purpose of cooling and compressing soap in one operation and turning it out of the machine in bars of the proper cross-sectional area to be cut or stamped into hand cakes of soap. The device is without doubt one of the most efficient of its kind that has yet been brought to the attention of manufacturers. The inventor, Mr. Joseph Bock, 615 Epworth Ave., Winton Place, Cincinnati, Ohio, U.S.A., is desirous of arranging the manufacture of this invention in the Dominion with a reliable manufacturer or the outright disposal of his interests.



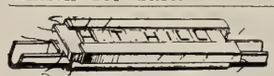
WOOD-WORKING MACHINE for finishing the flat surfaces of woods for all kinds of finished products and having means whereby the rotating disks with the cutters and smoothers fixed therein may be perfectly adjusted to each other and to the surface being finished. The device is simple in construction, strong, durable and absolutely efficient in use. Patent rights for sale by James W. Gray, Tacoma, Washington, U.S.A.

BOTTLE & STOPPER. This simple and ingenious device is very efficient in use, may be cheaply manufactured and placed on the market at a minimum cost with a reasonable profit. Is absolutely sanitary and may be adapted to many different uses. Patent rights for sale by Mrs. Corrie Miller, Schumacher, Ont., Canada.

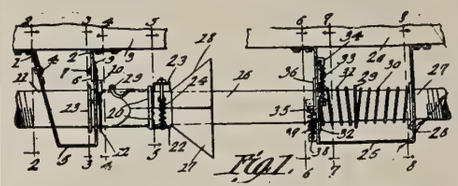




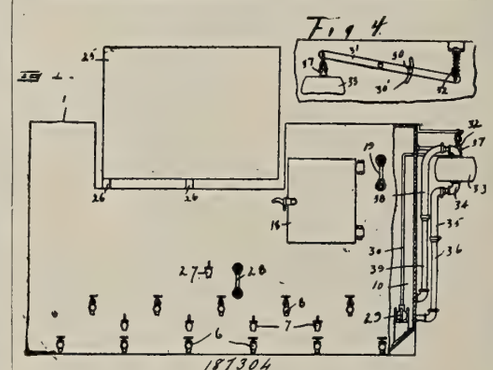
METHOD OF HEATING.—This device is known as the "New How" Gas-Savo Oil-Burner. It is so constructed that it may be installed in any stove or furnace. The device is equipped with special features whereby a gas is produced from coal oil, which gas throws an intensely hot, blue flame. The device is especially adaptable to Quebec heaters and provides one of the cheapest fuels; has no wicks, no fumes, is perfectly safe; easily installed. The inventor, Mr. A. L. Howard, Avonmore, Ont., offers patent rights in the Dominion for sale.



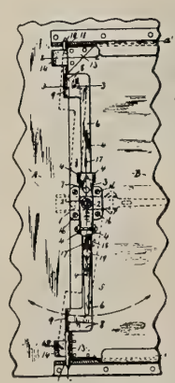
NAME PLATE FOR UMBRELLAS, so constructed that it may be applied in an economical and expeditious manner, at the same time being highly ornamental. Any name or address may be quickly assembled and applied to the ordinary umbrella so as to protect the owner. The name itself may be formed by quickly assembling and applying the proper letter carrying elements, which can be cheaply produced and kept in stock in large numbers in department and other stores where umbrellas are for sale. Patent rights for sale by F. G. Farnham, 515 Park Street, Honesdale, Pa., U.S.A.



TRAIN PIPE CONNECTOR.—A simple, inexpensive and durable connector which may be readily applied to railway cars, having air brake systems and which will properly connect the train line pipes thereof so that there will be no leakage at the joints. Patent rights are for sale by Jacob Obednour, R. D. No. 2, Box 86, Martinsburg, Pa., U.S.A.



OIL FILTER.—One which will reduce the overhead expenses of any large manufacturing firm. This device will reclaim over 85 per cent. of apparently useless oil. Do you realize what this means? The reclaimed oil may be reused and is as good and as clean as before being used. The device has been thoroughly tested, and hundreds of testimonials from manufacturers, engineers and mechanics have been received. The inventor is desirous of getting in touch with a reliable manufacturer with a view to negotiations for the disposal of his interests in the invention, or the manufacturing of same. For further particulars, address Mr. J. H. Packer, Liberty, Missouri.



CAR DOOR LOCK.—A strong, durable and most reliable car door lock; is simple in construction and absolutely efficient in use; may be cheaply manufactured, and will hold the door when closed so that same cannot move out of position while the car is in transit, does away with nailing block or boards to side of car. Makes the door weather-proof and is adapted to be easily attached to the car door. Patent rights in Canada are for sale by the inventor, Mr. C. B. Fink, East Syracuse, N.Y., U.S.A.

Manufacturers interested in patents should have their names on our Service Dept. mailing list

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BRANCH OFFICE: WASHINGTON, D.C

SHIPMAN CHAMBERS—131 BANK STREET

Ottawa, Canada, Jan. 7th, 1920

Manufacturing Corporations,
Canada and United States

Gentlemen,-

To-day in business, "Service" is one of the most important selling assets. A motor car, without a service station system throughout the country, would never sell.

We are not the oldest Patent Attorney firm in Canada, but to-day we are filing more Canadian patent applications than any other attorneys. During the past, we have tried to give our clients prompt, personal service in carefully looking after their interests before the Patent Office. We now have a larger service to offer corporations interested in protecting their Canadian rights.

Every corporation employs a certain amount of brain-power. You give them the best tools for experimental purposes, supply them with technical reference books and magazines and then ask them to perfect your lines of product on which perfection you intend obtaining a patent.

Are you giving him a fair chance to make good ?

Good tools and technical reference-guides, coupled properly with guided brain-power, may perfect your line of product but are they working to perfect something on which you can claim patentability ? Our service system can supply you with the missing link, a complete card-index of the Canadian and United States patents pertaining to your line of product. Your brain-power can see an illustration and the claims of patents already allowed, properly classified. This not only gives your brain-power a guide in keeping their experiments along patentable lines but it acts as a reference to show the construction others have worked out, from which your brain-power will often be able to get valuable suggestions.

The brain-power of your corporation can give you better results if properly equipped. A sample of this card-index and full information sent on request.

Yours respectfully,

Harold C. Shipman & Co

Packing House Industry

(*Continued from page* 250.)

year, however, this trade has not opened up. There is no doubt that the demand for meat is there, but until such time as the exchange situation is stabilized or else large credits are granted, the European export trade will be more or less limited. The Central European countries, however, have had their live stock population decreased to a very large extent, and it will be at least five or ten years before they can hope to get back to normal conditions. Even when a normal condition is reached there will always be a heavy demand for meat and meat products owing to the tremendous population of these countries.

A year ago everyone was pessimistic as to what the future might hold in store for the packing-house industry. The war was finished and armies were being demobolized with great rapidity. During the war, plants had been enlarged to take care of the insistent demand of the allied armies for meat. At the signing of the armistice this demand entirely ceased. England was carrying tremendous stocks of meats in cold storage as a protection against a shortage which might be caused by cargoes being held up or sunk by submarines. The packing houses had been keyed up to the fullest extent to keep the supply of meat going forward; therefore, when this demand suddenly ceased it was a cause of great concern as to the future. During the Fall of 1919 Canadian packers had put away large quantities of frozen beef in cold storage to take care of orders which they expected, and were informed they would receive from the British Government. Therefore, with this large stock of beef on hand and demand cut off, the Canadian packers had every reason to be pessimistic as to the future. The British Government were holding great stocks of frozen beef in Australia and the Argentine, which they had bought during the war, but were unable to transport on account of shortage of ships. This beef was bought at 10 pence, c.i.f. England, whereas the Canadian beef had cost 23 cents per pound, seaboard. However, later on in the year, Canadian packers were able to sell their entire stock of frozen beef to the Italian Government.

The outlook to-day is entirely different. The domestic consumption has largely increased. Every indication points to the immediate signing of the Peace Treaty, and immediately the necessary credits are arranged, there is no doubt there will be a great European demand for all the meat and meat products which Canadian packers may have to offer. At the present time the exchange on the European currency is at a very large discount, but it is hoped that upon the signing of the Peace Treaty necessary steps will be taken to stabilize the exchange between the European countries and America.

The future success, therefore, of the Canadian packing-house industry depends to a large extent on—

1. The farmers increasing production of live stock.

2. The securing of export orders from Europe in competition with the American packers.

Therefore, if the American Government or American financial institutions make loans to European countries with which meats can be purchased, the Canadian Government, or Canadian financial institutions will also have to do the same. This will have to be done if the Canadian farmer is to receive the same returns for his live stock as the American farmer.

FOR SALE

For sale in Western Ontario quantity of Lackawanna Steel Side and Corner Piling. Address, J. E. McKimmie, 838 Marine Trust Co. Building, Buffalo, N.Y.

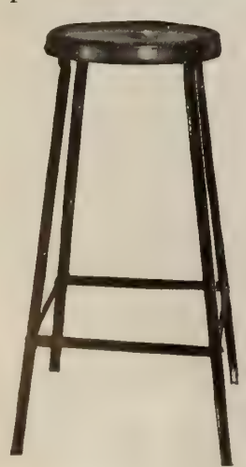
DENNISTEEL
Made in Canada

CHAIRS AND STOOLS



THE best kind for use in factories, stores, locker rooms and wherever hard service is demanded. These durable all-steel chairs and stools end the wood-mending nuisance so costly in time and labor in many plants.

DENNISTEEL Chairs and Stools are fire-proof, warp-proof and wear-proof. Cannot come unglued or become rickety. Seats are all one piece, stamped out of a single sheet, and have rounded edges. Legs are angle steel, reinforced lower down with straps to ensure rigidity. Back rest of chair is adjustable. Finished in baked-on enamel---olive green, black or any other color desired.



WE ALSO MAKE

Steel Shelving Steel Lockers Steel Cabinets, Bins, etc.
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THE DENNIS WIRE AND IRON WORKS CO. LIMITED
LONDON
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Halifax Montreal Ottawa Toronto Hamilton Winnipeg Calgary Vancouver

CANADIAN INDUSTRIES EXHIBITION MAKING SPLENDID PROGRESS

Early indications point to a pronounced success in connection with the Canadian Industries Exhibition, to be held in London, England, next June.

To date the actual allotments and reservations written in Canada alone offer sufficient assurance in this respect—and cabled advices received from Mr. H. G. Montgomery, the Organizing Manager in England, indicate further big purchases of space.

Canadian manufacturers, therefore, who have not already signed up for space, and who intend to participate in the Exhibition, would be wise to give the question immediate consideration. Those who have already made their allotments have done so on a large scale, with the evident intention of making their exhibits comprehensive and complete. Such action will unquestionably have a two-fold effect. It will impress British and Continental buyers with the aggressiveness of the individual manufacturers who participate, and at the same time definitely establish abroad the knowledge that Canada is one of the foremost industrial manufacturing countries in the world.

The "Trade Within the Empire" movement is gaining momentum with remarkable rapidity, and Canadian initiative, as indicated by this Exhibition, will place Canadian manufacturers, individually and collectively, well to the front in the race for Empire trade.

Write TO-DAY for full information to O. C. Pease, Sole Canadian Representative, 41 Victoria Street, Toronto.

CANADIAN INDUSTRIES EXHIBITION

ROYAL AGRICULTURAL HALL, LONDON, ENGLAND

June 3rd to 17th, 1920

Canning Industry

(*Continued from page* 191.)

is to be pitied, and, unless he can make good profits, he is an absolute fool to continue in the business.

His business is one of constant worry from the beginning to the end of the season. For the reasons stated above, he is obliged to have inefficient help; then on top of this he deals in perishable goods which require unusual skill and attention to prevent loss.

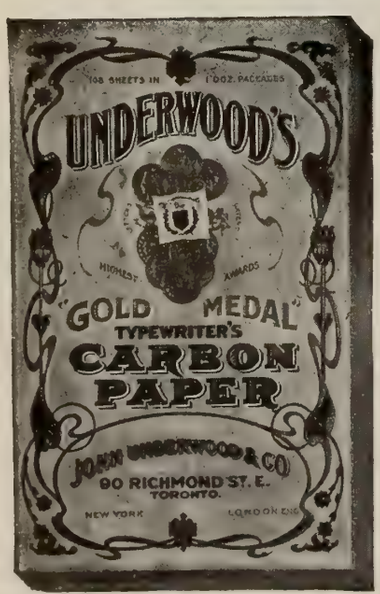
As to the supply and quality of materials for canning, the canner is absolutely at the mercy of the elements. He contracts with the farmers to sow or plant an acreage which, under a normal yield, would give him an amount of goods sufficient to fill his average orders, but there are no normal seasons. Almost every season is abnormal at one time or another; therefore, it seldom happens that the canners have a normal pack of staple lines. He may have a normal pack of peas but a total failure in corn or tomatoes, and *vice versa*.

During the past year, owing to the excessive rains in the spring, followed by excessive drought, the pea crop was only on an average over the province about one-third of a crop. As usual, however, this poor crop was not universal. In one neighborhood, upon soil that could be planted early and which does not suffer from excessive wet, a normal crop of peas might have been harvested. In another section where the land was somewhat flat or somewhat of a clayey nature, the excessive rains followed by the excessive heat would destroy the crops so that the packer only got 10 per cent. or 20 per cent. of a normal yield. Corn suffered equally with peas in the spring and early summer, but the autumn was very favorable for corn and tomatoes, so very favorable that in some localities extraordinary crops of both corn and tomatoes were produced, so that the average corn crop of the whole province was not much below normal, one man having 150 per cent. and another man only having 25 per cent., but after it was all averaged up, it reached nearly a normal. Tomatoes were above the normal crop. The tomato crop was really an extraordinary crop. I believe there never has been a heavier crop, but the acreage was not quite as great as in some previous years.

Then the demand from Great Britain, a demand which I believe is only temporary, took care of any little surplus that there might have been, had we been confined entirely to the Canadian market. Previous to the war it was next to impossible for us to market tomatoes in Great Britain, the imports of tomatoes into Great Britain being almost exclusively drawn from Italy, but conditions had not yet become normal in Italy during the past season. As soon as they do become normal I anticipate that they will again supplant us entirely in the British market. Labor is infinitely cheaper in Italy than in Canada and the climate of Italy is more regular and dependable for the growth of tomatoes, and these two things are mighty factors in the economical production of goods of this nature. As for corn, it is not consumed to any great extent in Great Britain, and we cannot expect to successfully compete with the States to the south of us in the production of corn.

In regard to increased production in the future. There is sufficient canning factory capacity already constructed and in operation to pack very much more than is required by the Canadian public. Not many new factories have been erected since the great cataclysm of 1913 and 1914, when the production was so much greater than the consumption, that a very large number of canning companies went into bankruptcy and when the strongest were shaken to their foundations.

In some sections the supply of raw material, especially



"Gold Medal"
Carbons and Ribbons

We have studied and investigated every variety of machine and typewriting requirement and present "GOLD MEDAL" Carbon and Ribbons as most suited to successfully and economically produce efficient results.

John Underwood & Company

Manufacturers of Writing Inks, Carbons and Ribbons

90 Richmond Street East

New York TORONTO London, Eng.



Five Plants Busy Making Powdered Milk

Sixteen years ago, one small plant was sufficient to supply the Canadian demand for powdered milk; to-day we have five modern plants, our own bacteriological laboratories; machine shops for making our own plant equipment, and three busy branch offices and warehouses.

Instead of bringing milk long dusty distances to the city, we build our plants out in the sweet, clean country so that the fresh milk comes to us from the nearby farms.

At our clean plants, the milk is tested for purity, pasteurized and dried by our spray process. We then have powdered milk which is incomparable in quality and a product which is absolutely soluble and natural in flavor.

We hope in the near future to have this product for the world's markets. In the meantime, we are doing our best to supply the Canadian demand.



CANADIAN MILK PRODUCTS, Limited

TORONTO

Montreal **Winnipeg** **St. John**

of peas and of corn, is difficult to obtain owing to the great profits that have been made during the past two years in the growing of sugar beets and tobacco, the sugar beet factory paying $12.00 per ton and upwards for beets which were purchased before the war at $4.50 to $5.00 per ton. So long as this condition prevails, it will be difficult for canning factory owners to purchase peas and corn in those sections, at a price that will enable them to compete with other sections of this country or with the United States, in the production of these two articles, but I think it is fair to assume that the production of sugar will so greatly increase in the European countries from which large exports were made before the war, that our sugar manufacturers will not be able to keep up these very high prices permanently.

Biscuits and Confectionery

(*Continued from page* 186.)

on lines that could be produced in larger volume, and omitting those that require more labor to produce.

There has been a steady demand for some time for the better quality of goods, which has been increased this year. Prices have necessarily had to keep pace with cost. Marketing conditions have been handicapped in many parts of Canada, owing to unsatisfactory railway service. This particularly applies east of Ontario, and north of the Province of Ontario, also the lower provinces. Export business has not been a factor with us, as our domestic requirements have been demanding more than our output.

The demand for our products has been good, and we look for a continuation of this demand for some time to come. No doubt, in the course of a year, or a year and a half, there will be danger of over-production, particularly if export of our class of products ceases, which it is likely to do, when the British and other countries get steadied down to business and commence exporting, which they are making arrangements for.

Nearly every factory in our line of business, has also increased its capacity. There are also a number of new factories started and in process of starting. Some of these manufacturers have exported largely or entirely. With these possibilities facing us, the outlook would seem to be a strong prospect of over-production, which may or may not be overcome by increased consumption through steady employment and immigration.

OUTPUT ONLY LIMITED BY LABOR

By W. D. Ganong

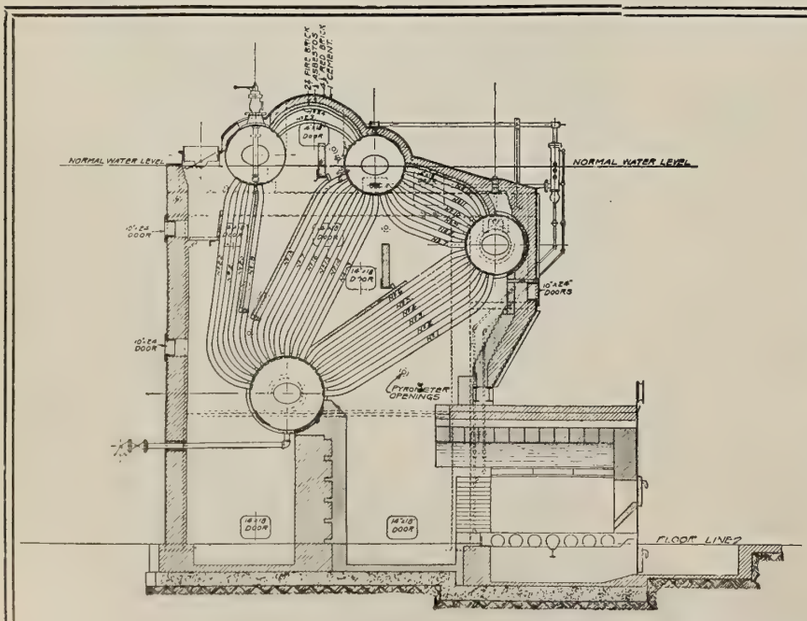
President, Ganong Bros. Limited, St. Stephen, N.B.

Our output of goods has been curtailed by the amount of labor we can obtain. We are in a small town and we cannot get the necessary female help. We built a boarding-house last year, which will hold sixty girls, and which is now full, almost all New Brunswick girls from the smaller places. We have, however, about double the help we had last year.

Re raw materials, we are having a good deal of difficulty in obtaining these. We carry a very heavy stock and plan on never running out. Our chief difficulty has been in obtaining woodenware.

We have increased our production and sales materially. We find people willing to pay almost any price for candy and, while the increase has been on all lines, the greatest demand is for the highest grade of chocolates that we make.

There has been a big export demand for confectionery. During the last month we have not had so many enquiries, but before that we had a great many letters, particularly from the United Kingdom. The manufacturers in the United



CONNELLY WATER TUBE BOILERS (Patented U.S. & Canada)

are of the 4 drum type, have 100% tube area in the path of circulation, and deliver steam superheated to from 5 to 10 degrees Fahrenheit.

Simple in design, no flat surfaces, no stay bolts, no crown bars, no braces, no handholes, free from joints.

All parts easily accessible for cleaning, both internally and externally.

Can be built in units from 200 H.P. up to 4,000 H.P. and for working pressures up to 300 lbs.

100,000 H.P. in successful operation.

MADE IN CANADA BY E. LEONARD & SONS, LTD.

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Vancouver Machinery Depot Ltd., Vancouver, B.C.
George Stewart, 5 Lincham Block, Calgary, Alta.
Wm. W. Hicks, 567 Banning St., Winnipeg, Man.
Thos. A. Pippy, Waldegrave St., St. John's, Nfld.
E. J. Philips & Sons, 103 Hamilton Trust Bldg., Toronto, Ont.

ESTABLISHED 1834

London LEONARD Canada

Champion

Dependable Spark Plugs



Champion "Heavy Stone"
B 13....½ inch
B 43....⅞-18
B 53....⅞-long
Price $1.25



Champion "O"
For Overland Cars
A 14 "O", ⅝ inch
Price $1.00



Champion "X"
A 15, ½ inch
Price $0.90

—are regular equipment in over 250 makes of Motor Cars, Trucks, Tractors, Farm Engines and Motor Cycles in Canada and the United States.

The reason back of this is that Champion Spark Plugs have successfully met every test to which a spark plug can be subjected. Champion 3450 insulators stand up under the extremes of heat, cold, vibration and shock, and give satisfactory service under every condition that spark plugs must meet.



Champion
"Maxwell"
for
Maxwell Cars
A 44, ⅞-18
Price $1.00

It doesn't matter what make of car or gas engine you may have or what it is used for---there is a "Champion" that will meet its requirements efficiently and economically.

"Champion" on the insulator indicates a spark plug which assures "plus" service and satisfaction.

Remember this fact when making replacements.

Sold where Motor Supplies are sold.

Champion Spark Plug Co. of Canada, Limited

Windsor, Ontario



Champion
"Studebaker"
for
Studebaker Cars
A 13 ½ inch
Price $1.00
A 43, ⅞-18



Champion "Buick"
for
McLaughlin Cars
A 53, long ⅞-18
Price $1.00



Champion "Aero"
Truck
Jas 43, ⅞-18
Price $1.00

Kingdom have been curtailed on sugar, and for next year they are to have only 75 per cent. of the sugar they had in 1915. Unless there is some embargo placed on confectionery, there should be a big demand for export, if business continues as good in the United Kingdom as it is at present.

Regarding the outlook, there is undoubtedly a big demand for confectionery, chiefly for two reasons: first, the increase in wages and the fact that the younger men are getting far better wages than ever before; also the young women, and these are large purchasers of confectionery. Second, the prohibition law has undoubtedly affected the candy business.

WITHDRAWS FROM FOREIGN MARKETS

By C. E. Edmonds

President, Christie, Brown & Co., Ltd., Toronto

Until the latter part of the past year labor was exceedingly scarce. Raw materials were higher in price, but deliveries were easier. Production has to some extent been decreased by our having reduced hours of labor from 50 to 44 hours per week, and our inability to secure a sufficient number of satisfactory workers to make up for the loss in time.

We have noticed an increased demand for high-grade goods, and prices are higher due to increase in cost of production. The demand of the home market being in excess of supply, we were compelled to withdraw from foreign markets.

Our opinion is that the demand for our product will not diminish as long as money is as free as at present, but the outlook *re* cost of raw material and labor does not encourage one to make a material enlargement of plant. As a matter of fact, our equipment is of a capacity to enable us to vastly increase our output if the class of labor that we employ could be secured to meet our requirements.

FINDS GOOD INCREASE IN BUSINESS

By J. A. Marven

J. A. Marven Limited, Moncton, N.B.

We have not had the trouble with labor that we experienced last year. Our employees are working much more steadily, and we have been able to secure all the help we require. We have nothing to complain of with respect to raw materials and have been able to get everything with the exception of a few lines, very satisfactorily.

We have had a very good increase in business during the past year, our output being from ten to fifteen per cent. better than last year. We find that the trade is calling for a much more expensive line this year; in other words, the lower grades of biscuit are only selling in limited quantities, and our most expensive lines are in great demand. Our export business is developing very slowly.

We are looking for good business during 1920, and hope that it may continue. We have increased our plant by some 36,000 feet of floor space, which we hope to have completed in the early spring.

CONDITIONS IN EXPORT FIELD FAVORABLE

By G. M. Morgan

Export Manager, Canadian Biscuit and Confectionery Export Co.

In exports the past year has been a banner one for Canadian manufacturers of confectionery and biscuits. The exact value of goods going to outside markets, cannot at the moment be ascertained. From our observations and information received, we would place same at approximately $4,000,000. This is very gratifying, when we take into consideration that in the pre-war year of 1914, the customs blue book shows in confectionery less than $5,000 as being exported.

The present position is abnormal, in so far as the English market is concerned, due to the fact of war restrictions and sugar shortages. This condition has made it possible to place Canadian products, irrespective of quality and price. However, we feel in order to make our present positions permanent, it will be necessary to watch very carefully the manufacture, as quality will determine to a very great extent our future. The export business cannot be taken lightly, nor as a temporary antidote for unsatisfactory local conditions. To engage in it necessitates being always prepared to supply at short notice what foreign clients want, whether domestic business is low or booming.

There is no doubt in our minds as to the future of Canadian biscuits and confectionery in the export field, provided that the goods are of the right quality and that our prices are not in excess of those of our competitors. The Canadian Biscuit and Confectionery Export Co. is doing all possible to further the interests of the trade in general, and have representatives now in the West Indies and South America, and have under consideration the exploitation of Oriental, Australasian and African markets, as we feel that Canadian-made products in the lines mentioned can compete favorably with goods manufactured in other countries.

Boots and Shoes

(*Continued from page* 190.)

per cent. to 100 per cent. higher than it was a year ago. We have not found it necessary to enlarge our capacity, as there is considerable competition between manufacturers for the help available, and it will be a serious question when additions now being built are ready for operation, and the supply of help which is already shorter than the demand has to be found.

We have found that the tendency this year as regards demand has been considerably increased, especially on men's shoes, and the demand has been for shoes of a good quality, the cheaper lines being hard to move. Prices have advanced materially, but instead of preventing buying it has tended rather to stimulate it.

We have not been engaged in export business on account of the large home demand, but we believe this has been a factor and had we been in position to handle any of it we could have had sufficient to keep us running at capacity for many months. We believe it has been a factor, though a small one, in general conditions as regards prices and supplies of raw materials, but so few manufacturers have been engaged in it compared with the total number of manufacturers in the trade, that we do not think it has made any serious difference to Canadian conditions.

Our opinion is that the present conditions are not healthy and the demand for shoes is in excess of actual requirements. It is impossible to predict how long present conditions will last, and we would not venture a prophecy in this connection. We have no plans for factory enlargement at present on account of our belief, already mentioned, that present conditions will not be permanent, and in addition to this the uncertainty as regards tariff, and the irrational workings of the Board of Commerce would be sufficient to deter us from entering on any such plan at present even though we were otherwise disposed and in position to enlarge.

INFLUENCE OF BOARD OF COMMERCE FELT

By Clayton E. Hurlbut

The Hurlbut Co., Limited, Preston

The labor situation with us has been satisfactory except for a lack of female workers. Other manufacturing conditions have been favorable. Our production has been increased and during 1919 was somewhat larger than in 1918. We have en-

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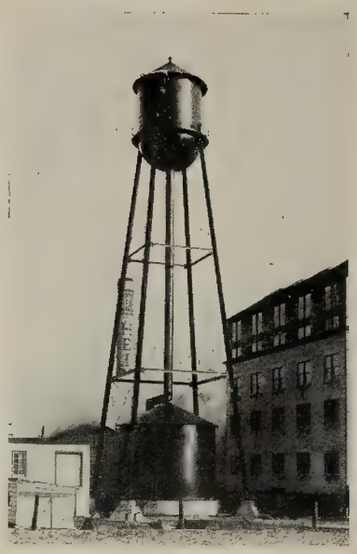


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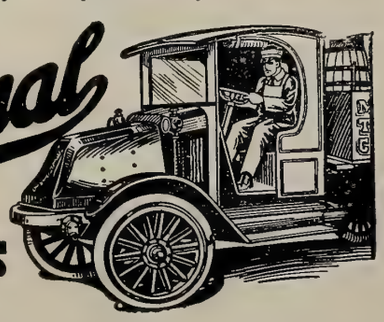
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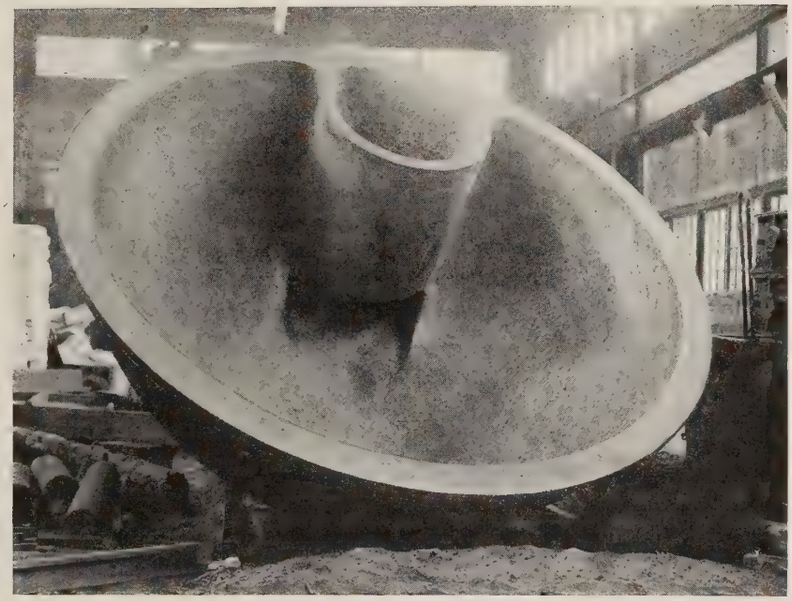
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larged our capacity by the addition of a fitting-room at St. Mary's. The market demand for shoes has been fair, but there seems to be a tendency, which did not prevail last year, to question prices. The Board of Commerce ruling on retail profits may result in lessening demand in lines other than staples and even on staples. The retailer will hesitate to order far ahead as he will not have the incentive of higher prices. How this will affect manufacturing is hard to determine at this time. Export business has not been a factor. We regard the outlook as uncertain.

DOES NOT LOOK FOR ANY FALLING OFF

By C. Dufresne
Dufresne & Locke, Limited, Montreal

We must admit that we experienced considerable trouble some time ago regarding labor. However, we thought it advisable to go into the matter thoroughly with our employees, and although we found it necessary to increase the wages from 30 to 40 per cent., and even 50 per cent. in some instances, the matter was adjusted to the entire satisfaction of all concerned.

Leather of all descriptions is extremely scarce and prices are exorbitant, but the demand being so great it is not at all surprising. Machinery, findings, etc., have also followed suit, and even at advanced prices it is not always possible to procure the article wanted.

Business to date has been very satisfactory. Our output so far has considerably surpassed the amount of business accomplished during the same period of 1918. In fact, we have found it necessary to increase our capacity about 25 per cent. to meet the ever-increasing demands. The boot and shoe trade in general seems to be very good. This is no doubt due to the return of so many troops and their dependents. Previous to the signing of the armistice, merchants only ordered in sufficient quantities for their immediate requirements, and had nothing stocked ahead. The hope of lower prices was evidently the cause. Hence there is quite a shortage now, and although prices are higher than ever, the goods must be had regardless of cost.

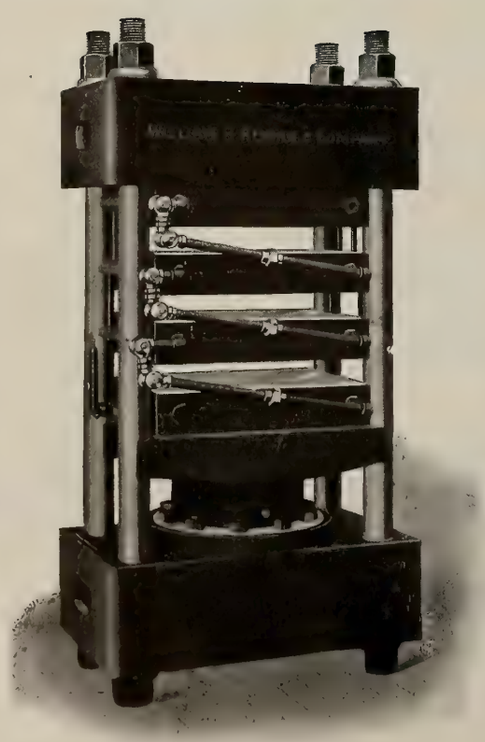
There is great demand from abroad for all staple lines, and the large export business now in force also tends to the scarcity of merchandise in general for the home market. We have undertaken quite an item of French business, particularly in men's lines. However, we find shipping very slow. All foreign ports seem to be greatly congested with freight, and the length of time it takes shipments to reach their respective destinations is beyond the ordinary. This is a great hindrance to the shipper as regards payment of goods, etc.

Regarding future business, we certainly think there will be no falling-off. Owing to the extremely high prices we had to quote when sending out spring samples, we did not anticipate many returns, and must admit that we are surprised at the number of orders that have already been booked for spring delivery. An extraordinary fact is that the jobbers are now placing orders at higher figures than what they are actually charging their customers for goods. We are indeed well pleased with the results of 1919, and from present appearances business will no doubt be exceedingly flourishing during the coming year.

CONDITIONS STABLE FOR NEXT FEW MONTHS

By G. W. McFarland
Managing Director, Williams Shoe, Limited, Brampton

We have no hesitation in saying that there has been considerable improvement in the labor situation during the last year, in so far as being able to secure inexperienced



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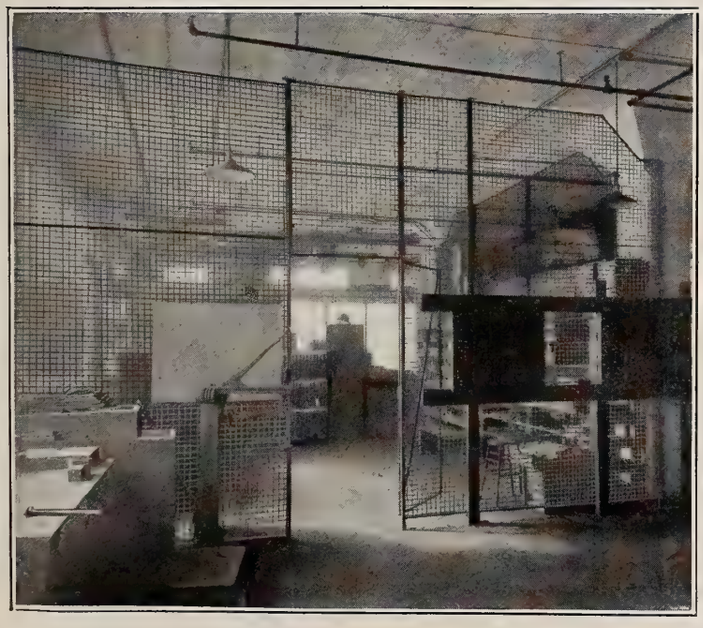
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male help is concerned. There has been during the year, and there still exists, a scarcity of experienced shoe operators. We have been, speaking for our own factory, taking on green help and training them in the different departments. There has been, however, a serious shortage of both experienced and inexperienced female help, and this still exists.

We have experienced no difficulty in securing all the supplies of raw material that we require. Prices, of course, have been extremely high, especially during the last six months, in so far as leather is concerned. Findings have also been advancing, but, as already stated, these materials have been procurable in practically any quantity required.

There has been a gradual increase in production during the year, our output for the last three months of this year being 50 per cent. over last year. There has been a slight increase in capacity, as, owing to the shortage of female help, we were compelled to open a branch fitting-room in another town, which has enabled us to keep the other departments of our factory up to something near capacity.

There has been a very keen demand for shoes during the past year. The demand has been greater than our capacity, and we have been compelled for this reason to decline considerable business. The demand has been for good quality of footwear. Prices have ruled high, and prices for spring booking are higher than at any time during the past four years. Owing to the heavy booking and the comparatively low production, the deliveries have not been as satisfactory to the retail trade as could be wished for, but, on the whole, the merchants have shown a fine spirit and have been exceptionally patient, realizing as they did the adverse conditions under which the factories were working.

Owing to the very heavy domestic demands, we have not manufactured during the past year any shoes for exporting, although we had the opportunity of placing a large volume of business in the English, French and Belgian markets.

One can only make a rough guess of what the future holds for the shoe industry as regards production and distribution. We believe there will be a gradual improvement in production, providing labor conditions will remain normal and there is no further reduction in the working hours. We are not at the present anticipating enlarging our plant. We are, however, installing additional machines in several departments, which we expect mill be a means of increasing our output from about 25 to 40 per cent., which additional production we require in order to take care of our domestic orders. We do not, however, anticipate any marked change in conditions for the next four or five months. Beyond that time it would be hard to predict.

Mining Industry

(*Continued from page* 201.)

impetus was given to the production of pyrite in Canada. The supply of Spanish pyrite, which had been used in the manufacture of sulphuric acid, was no longer available on account of lack of shipping. Pyrite deposits were mined extensively in Ontario, Quebec and British Columbia. With the close of the war the explosives industry fell off and less pyrite was mined. A large quantity of sulphuric acid is consumed in the phosphate industry; it seems likely that the return to normal conditions may be accompanied by greater efforts to replenish the fertility of the soil by the application of artificial fertilizers. As potash and nitrates become more readily available it is probable that the whole fertilizer in-

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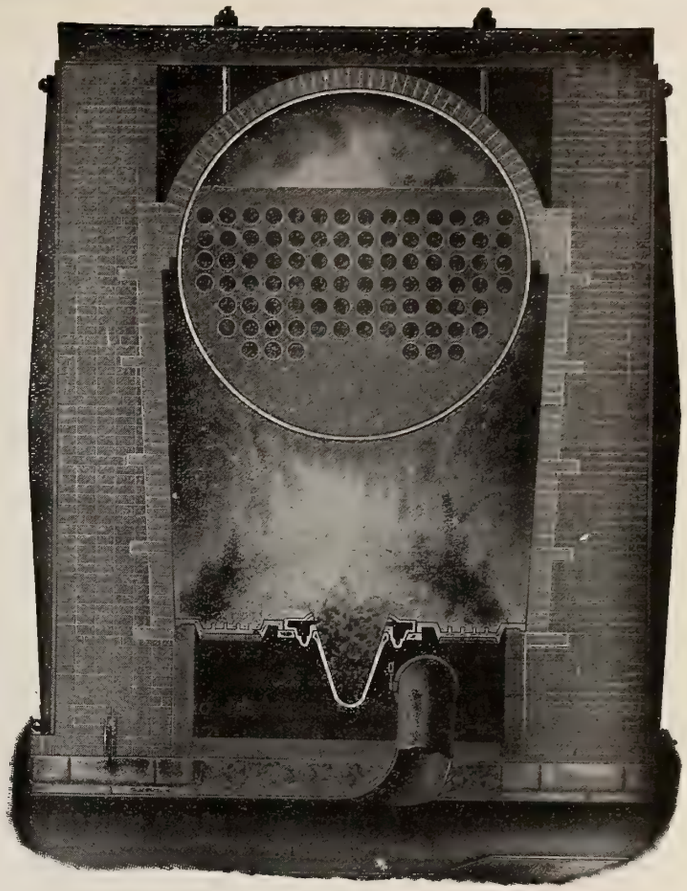
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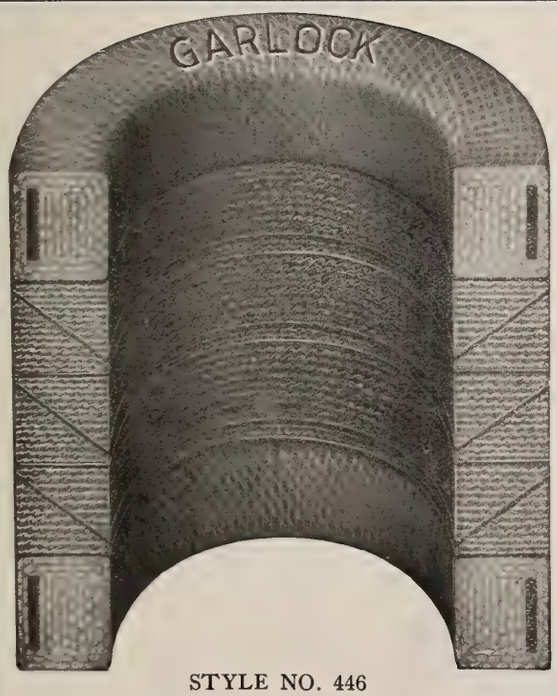
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dustry will greatly develop and a greater demand be made for sulphuric acid for treating the natural phosphate.

The great proportion of magnesite used for refractory purposes in America prior to the war was obtained from Austria. Soon after the outbreak of hostilities deposits of magnesite in Quebec that had received only moderate development were quickly put in a position to furnish supplies for the American market. A thriving industry was established. Large deposits of a very fine quality of magnesite were opened later in the State of Washington, but the Canadian product was favored by much greater proximity to the markets, the metallurgical industries using magnesite being situated mainly in the eastern part of the continent. Canadian producers are apparently confident of being able to hold their own against all competitors at least for some time to come, as the two most important companies have been spending considerable money in erecting calcining plants.

Discovery of Potash Minerals

The war forced Canada to a keen realization of her dependence on Europe for potash. A discovery made in 1919, however, raises hopes that at no distant date a measure of independence in this report may be attained. Potash minerals have been discovered associated with the salt deposits at Malagash, Cumberland County, Nova Scotia. Further investigation is necessary to ascertain the extent of the salt beds and the proportion of potash they contain. The discovery of potash is leading to further prospecting by boring. There are a number of places in Nova Scotia and New Brunswick where salt springs indicate the possibility of the occurrence of salt beds. Abraham Gesner, writing in 1836, about the salt springs along the coast of Northumberland Strait, said: "The infancy of the colony is a trite apology for not entering into useful speculations, but it seems impossible that any country can arrive at manhood when little pains are taken to develop its growth."

Even if potash should not be found in commercial quantities, the occurrence of beds of common salt in a province so well supplied with coal and with so extensive a fishing industry should appeal to the business instincts of enterprising Canadians.

Money Being Invested in Mines

There has been no lack of money for investing in mines, particularly silver and gold mines. Money has also been available for sending out prospecting parties and for the development of prospects. The division of the Geological Survey, whose duty it is to supply information to the public, was early aware that the year would see a great revival of prospecting. There was a demand for information about the geology, the known mineral deposits and the prospects for the discovery of minerals in parts of Ontario, Quebec and Manitoba, in Alberta, Northern British Columbia and other parts of Canada.

Information was desired regarding the Pre-Cambrian areas in which prospecting was most likely to be rewarded with the discovery of valuable minerals, especially the precious metals. Gold never falls below a fixed value, is never mistaken by the experienced prospector for less valuable minerals, is pleasing to the eye, and carries with it the glamor of romance. Silver had become doubly attractive on account of the great increase in price. The summer of 1919, therefore, saw greater prospecting activity than had been since the few years immediately succeeding the discovery of the rich native silver veins of Cobalt.

There seems to have been little difficulty in procuring money for carrying on prospecting for petroleum. The war taught the public the value of petroleum as a fuel and as the



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source of gasoline on which motor transport is so dependent. The consumption of petroleum has been proceeding at an alarming rate and petroleum geologists estimate that the approximate exhaustion of the present known sources of supply will take place at no very remote period. The feeling that the future of the petroleum market is assured, whether the nation be given over to wasteful expenditure in luxuries or to thrift and intense economic production, has aroused much interest in the possibilities of discovering new natural reservoirs of this convenient fuel.

Oil Possibilities in Alberta

Interest has been centred in the Province of Alberta. Some drilling was done in this province during 1919, and drilling rigs were taken down the Mackenzie for testing the possibilities of the Devonian formations. Geologists were engaged in working out the structure of the rocks in Alberta and ascertaining what areas presented conditions most favorable for the accumulation of oil. Much attention was directed to anticlinal structures in the foothills and it is expected that extensive drilling operations will be conducted during the year 1920.

Of the investigations carried on in Ontario those of Dover township were perhaps watched with greatest interest. In this township deep wells were sunk to test the Trenton formation and flows of gas and oil were struck. The Palaeozoic formations of the James Bay region are also beginning to attract attention.

Considerable interest was manifested in the oil shales of New Brunswick, but no plant for treating them has yet been erected. The shales are not of uniform composition. If, as is claimed by interested parties, the average composition of large bodies is such as to admit of retorting the whole mass with profit, then the industry when established should have a long tenure of life. The time is ripe for a thorough testing of the possibilities of the oil chales of New Brunswick and Nova Scotia.

In the early part of the year there was quite a little talk of making use of the aeroplane for purposes of exploring and prospecting the more remote areas of Canada, but apparently nothing effective was accomplished.

The adverse rate of exchange between Canada and the United States has been leading some manufacturers to make inquiries as to the possibility of procuring in Canada certain mineral products that have heretofore been to a large extent imported. In some cases the minerals are mined in Canada and production is capable of expansion; in other cases the minerals are available, but are not being mined. To get production of such minerals started, often all that is needed is the knowledge that there is a steady market for the product, and a little consideration on the part of the purchaser until the industry has got well on its feet.

To predict the future of the mineral industry is impossible. One satisfactory feature is that the labor situation in Canada at present is probably better than it is in any other country that was engaged in hostilities. The unrest in other countries, the unsettled financial situation and the high rate of exchange produce a feeling of insecurity. The world was war-weary; it entered upon a long holiday which it is spending in orgy of luxuries. Gradually the holidaying will cease, and gradually the people will learn that the solution of the present unsettled and unsatisfactory conditions lies in intensive work, thrift and economy, and an unselfish co-operation between employer and employee. The recovery will be gradual but there are already evidences of its approach. When it comes the mines of Canada will be so developed that they will be in a position to contribute much towards reconstruction and the re-establishment of basic industries.

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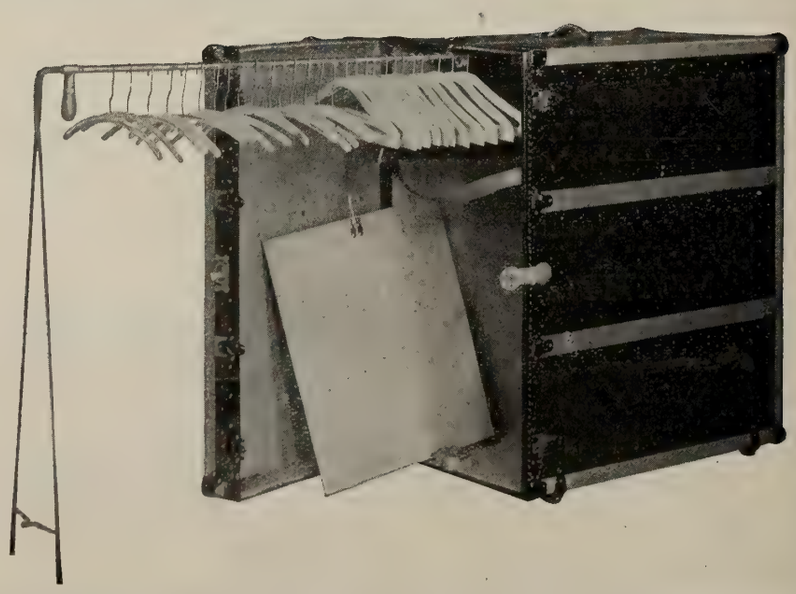
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Paint Industry

(*Continued from page* 203.)

that the export trade seemed to think that the markets of the world were going to drop, but since prices have held firm and they are commencing to see that there is no decline to take place, it is gradually coming back to its own again.

The outlook for the coming year is even better than that of a year ago, the demand being much greater, and it is going to tax our manufacturing facilities much more than in the past, in order to cope with the situation. Regarding enlargement of our plant, we would say that we have machinery ordered, and when in operation will quadruple our plant to that of 1912, and the possibilities in the near future, if conditions continue as at present, are that we will be forced to vacate our present premises and build a plant equal to all occasions.

INDICATIONS POINT TO BRISK DEMAND

By Ontario Manufacturer

Labor has been restless, looking for the maximum wages and giving only the minimum of production in return. Even what we consider our best men seem to produce less than in pre-war days. Raw materials, generally speaking, have been more difficult to procure than during the war years.

At present production is greater than a year ago, and apparently will continue, from present outlook, on an increasing scale well on into the spring months. The demand at present is much larger than a year ago. Industries using paints and varnishes to finish their products are all busy and buying freely. Jobbing houses and retail merchants and decorating concerns are buying more freely for spring shipments than a year ago.

Generally speaking, by reason of the higher cost of raw materials, increased labor and overhead expenses, prices are higher than a year ago, but notwithstanding this, orders were never easier to obtain.

Export has never been a large factor in the industry, but is increasing to some extent, and we believe will develop considerably during 1920.

Indications point to a very brisk demand during the first six months of 1920, and, generally speaking, we believe the industry on the whole, throughout Canada, will be able to take care of the demands that may be made upon it.

Musical Instruments

(*Continued from page* 205.)

curtailed our production to a certain extent. Our production, however, in 1919 was over two hundred per cent. greater than in 1918, and we look for at least one hundred per cent. of an increase in 1920. We are making arrangements for necessary equipment and factory space for this production, and if we secure the necessary raw material and labor, we do not expect any difficulty in selling this quantity. With reference to the quality of cases in demand, we would advise that the better grades are more in demand than the cheaper ones. We have never developed export business, as we have not as yet been able to take care of the local trade.

OUTPUT INCREASED FIFTY PER CENT.

By R. L. Chilvers

Berliner Gram-o-Phone Company, Limited, Montreal.

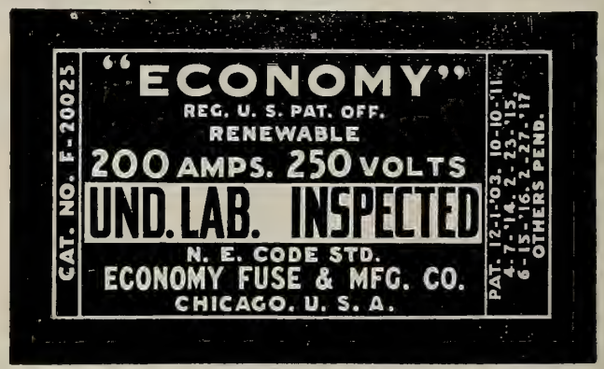
Production has been increased to a large extent, and present output is approximately 50 per cent. more than a year ago. The demand has been for the best quality goods. Prices on talking machines have been considerably advanced,



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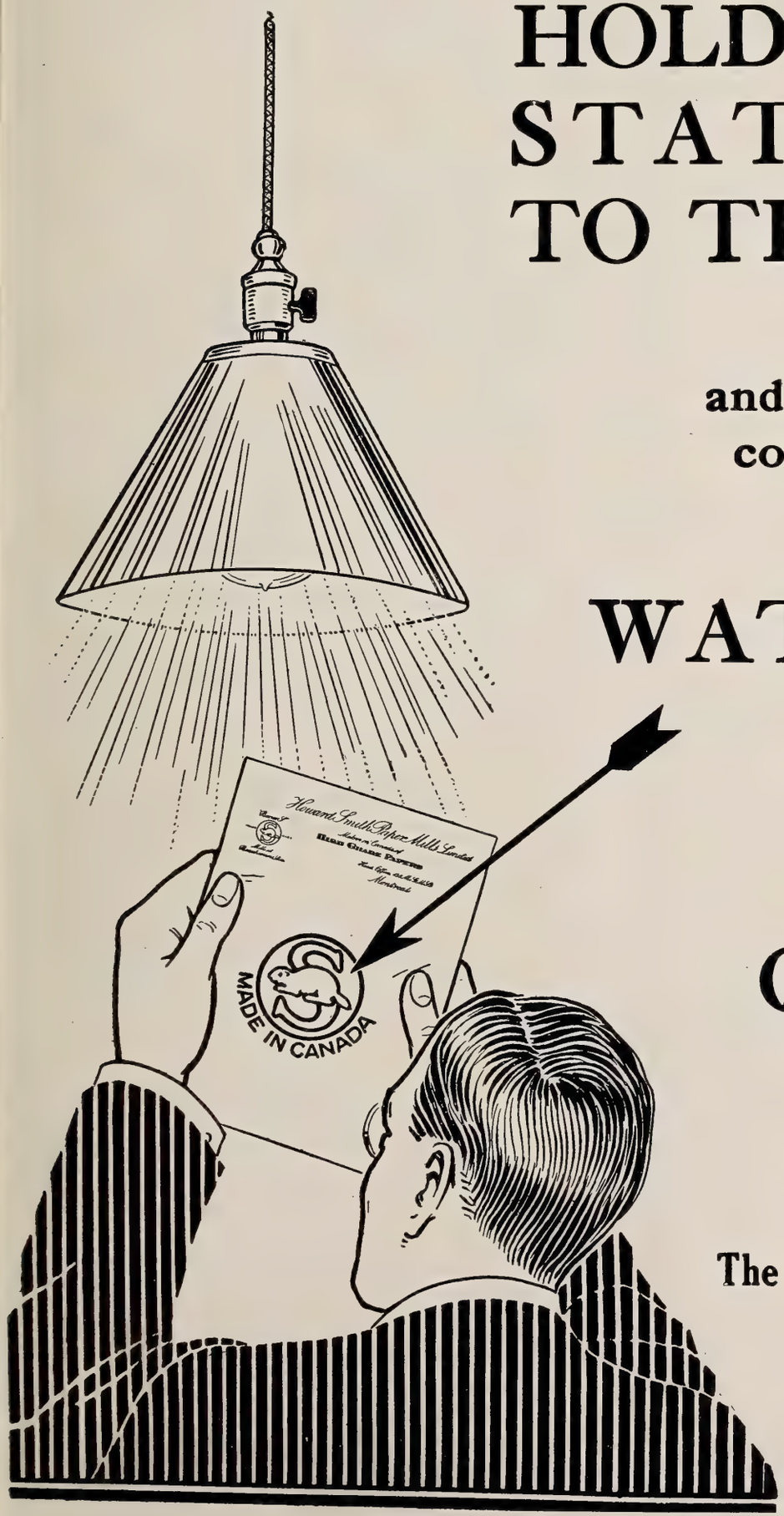
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but this has not affected the demand, while "His Master's Voice" records, which have not been advanced, although the cost of manufacture has gone up very considerably, are in greater demand than ever before. We think the demand is likely to keep up and we are making plans for considerable factory enlargements.

LABOR SCARCE AND MATERIALS HIGH

By E. C. Scythes
Nordheimer Piano & Music Co., Ltd., Toronto

Labor is certainly a most difficult and unsatisfactory proposition with piano manufacturers to-day, and there are few factories with a full complement of men. Not only is there an acute scarcity of dependable men, but the production per man is considerably below that of pre-war periods, when wages were about half the present cost. The outlook shows no element of cheerfulness.

A large proportion of the supplies and materials used in piano manufacture must be imported, for the reason that they are not available in Canada. These importations are in U.S. funds, and it is easy to see what the rate of exchange means in piano costs.

Prices are of course abnormal, so much so, that they no longer cause comment, other than the observations resulting from cost analysis which, each succeeding month, are more distressing. The purchase of supplies is largely hand to mouth buying, and on the seller's terms, which means at whatever the prices may be on date of shipment. This may be from a week to three months from the date of ordering. In the matter of ivory alone, a very recent advance in price was sufficient to increase the cost of a piano by approximately ten dollars per instrument. The Canadian manufacturer is in competition with England, France, Germany, Italy, Australia and the United States in the purchase of supplies.

Nominally, production is about equal to that of 1913, and for 1919 will be no greater than in 1918. Occasional factories report a larger output than ever before, but against these is the underproduction of a greater number of factories and a curtailment due to incipient strikes and to a strike of a month's duration in the Quebec plants, with the subsequent

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cut in production for a number of weeks following, due to some of the operatives having remained at other work secured while on strike. Machinery methods have not yet been discovered to balance the shortage of man power.

Export business in Canadian pianos is not an important factor in the business at the present time, because of the impossibility of turning out sufficient instruments for the home market. The trade is regularly in receipt of inquiries from New Zealand and Australia, South Africa and Great Britain. Some shipments have been made to these countries, and even to China and Japan, but reference to the blue book will show that the total export business is very small indeed. It is unfortunate that the possibilities of the foreign buyer cannot be taken advantage of, but under existing labor conditions, primarily, and the conditions governing in materials and supplies, export trade in piano interests only a few of our manufacturers.

There is nothing in sight to justify other than optimism, so far as the demand for pianos is converned. Costs, of course, continue to increase, and whether they will get to a point where piano prices will be forced up so high as to restrict sales, none can foresee, but the trade is fortified by the certain knowledge that the public had adopted a positive attitude concerning the necessity of the piano in the complete home, and that where there are children, the absence of an instrument is unthinkable.

Shipbuilding

(*Continued from page* 214.)

ing the supply of raw materials and other manufacturing conditions are fairly favorable.

Costs of production have increased greatly during the year, due to higher priced material and labor, particularly labor. Large increases were granted here in May of this year, and a forty-four hour week introduced.

Contracts for ships are not forthcoming, at the present moment, either from the Canadian Government or abroad. The British shipbuilder can still underbid us considerably and give reasonable deliveries, and as we have no protection of any kind we are not able to compete. We have only two ships in hand at present instead of six, for which we have room.

The future of Canadian shipbuilding is not at all bright at the moment. Lake owners are not in the market owing to the high prices ruling and, as stated above, foreign owners can buy to better advantage in Great Britain. Without some form of Government assistance, Canadian shipbuilders cannot possibly compete with such countries as Great Britain, Japan and Norway.

We have delivered four ships to the Canadian Government during 1919, namely, "Canadian Warrior," "Canadian Recruit," "Canadian Signaller," and "Canadian Gunner," and will launch the "Canadian Farmer" before the end of the year, leaving the "Canadian Observer" on the stocks. At our Kingston plant we will launch the "Canadian Beaver" before the end of the year. These ships are 3,995 tons deadweight and are built specially for ocean service.

THE INDUSTRY IN BRITISH COLUMBIA

From Vancouver Province

British Columbia shipyards in 1919 exceeded the 1918 output of 14,900 deadweight tons, and have contracts for 65,600 tons, most of which are well on the way to completion.

The total of steel and wooden ships built and launched at B.C. shipyards during 1919 is ten steel and forty-six wooden, tonnage 170,500. Four of the steel vessels were for the Imperial Munitions Board, six for the Canadian

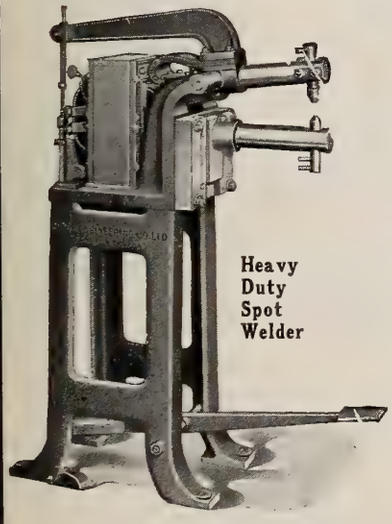


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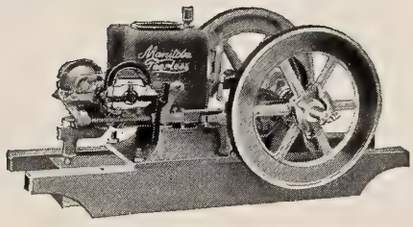
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Government merchant marine. The wooden vessels were built for French, Greek, Canadian and Norwegian interests. There were forty French ships, two Greek, three Norwegian and one Canadian. The wooden shipyards have all closed down because of lack of orders. With the end of the war the call for wooden vessels fell off, and steel shipbuilding is attracting most attention as general cargo carriers.

The steel yards of the province are all working on contracts. The Coughlan yard has two 8,100-ton Government ships to finish, expects further Government orders, and has orders for two 8,100-ton vessels from private interests. The Wallace yard is building an 800-ton ship for the Union Steamship Company, and has contracts for two 8,100-ton Government vessels. The Harbor Marine Company, Victoria, is engaged on two 8,100-ton ships for the C. G. M. M., and the Prince Rupert Drydock and Shipbuilding Company is busy on a similar contract.

Following is a table of construction during 1919:

STEEL SHIPS.

Coughlan's.

	Tons.
War Column	8,800
War Cavalry	8,800
War Company	8,800
War Chariot	8,800
Canadian Importer	8,100
Canadian Exporter	8,100
	51,400

Wallace's.

	Tons.
Canadian Volunteer	4,300
Canadian Trooper	4,300
Canadian Aviator	5,100
Canadian Raider	5,100
	18,800

WOODEN SHIPS.

Lyall's—8 French, 1,500 tons each	12,000
Northern Construction—5 French, 1,500 tons each	7,500
New Westminster—5 French, 1,500 tons each	7,500
Pacific Construction—2 French, 2 Greek	5,600
B.C. Marine—1 steamer	500
Foundation Company—20 French, 3,000 each	60,000
Cholberg—3 Norwegian	4,200
	100,300

SUMMARY.

Steel	70,200
Mainland, wood	36,100
Victoria	64,200
	170,500

All the vessels were steamers except the three built at the Cholberg yards. These were sailing ships of 1,400 tons each.

NUMBER OF CONTRACTS ON MARKET

By J. Wilkinson

Manager, Midland Shipbuilding Co., Limited, Midland

We find that the supply of labor in our part of the country is very fair, but the efficiency of the labor has not been of the highest class. The supply of raw material, which consists principally of steel, at this particular time is rather hard to get, in fact most materials are in the same category. Our cost of production during the last year has slightly decreased owing to different methods which we have introduced in our plant.

As regards future contracts, at this present time there are a number on the market but we have not secured any

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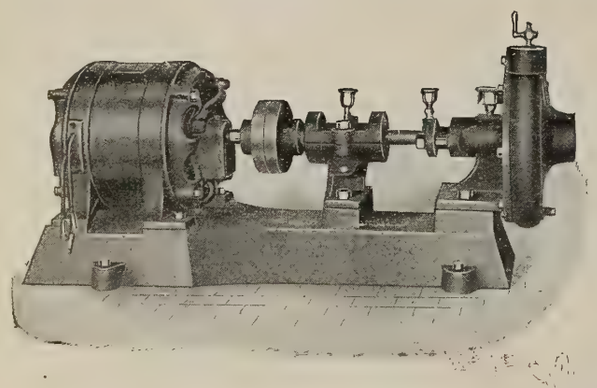
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Write for Bulletin

Hamilton Motor Works, Limited
HAMILTON, CANADA

as yet, but think that we stand a good chance. The future of the Canadian shipbuilding industry looks very well to us. The factors that will assist it, in our opinion, will be co-operation from the Government and much greater co-operation from the employees, with the management of the various plants, to keep the industry going.

We have completed two ships for the Imperial Munitions Board this year, the "War Leveret" and the "War Fury." These ships are of full canal size, 265 ft. x 42 ft., 6 inches. We are now building one for private owners, The Great Lakes Transportation Company, the same size, and expect to have a contract from the Canadian Government for one of the Government vessels.

Leather Industry

(*Continued from page* 196)

before this condition can be remedied, and supplies brought back to something like normal conditions.

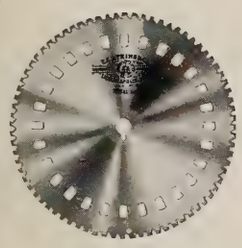
General operating conditions have been becoming somewhat easier as the year passed. Embargoes, and restrictions of all kinds, which were in force in large numbers when the year opened, have one after another been eliminated, thereby making general business easier to carry on, and essential commodities a little easier to obtain.

As to production, it is exceedingly difficult to form any definite comparison with the preceding year; but speaking generally, I believe that production has on the whole been increased during the year under review, though not to any large extent. The year opened with a somewhat quiet demand for leather because of the uncertainty following the signing of the armistice. Early in the spring European demand began to make itself felt, and increased rapidly, thereby reducing stocks of raw and finished material, and resulting in increasing prices. Coincident with the movement toward higher prices, the domestic demand for leather of all kinds increased until it had attained very large proportions. This demand has practically been maintained throughout the entire year. The export demand continued for some months, until the decline in foreign exchange rates made it difficult, if not impossible, for European customers to operate in this market, so that during the latter part of this year practically no new European business has been effected. Unquestionably there is a need for our products of leather and leather goods in Europe at the present time, and if the exchange conditions were to become more normal large demands would at once be felt.

So far as the outlook for the year 1920 is concerned, it is difficult to predict with any real certainty. Labor conditions it would seem should become easier as the year progresses. Such supplies of raw materials as are available in different parts of the world should be more easily transported, thereby making business easier to carry on.

It would appear that the domestic demand for leather and leather products is likely to be maintained for a goodly portion of the year at least, and the question as to the ability of the manufacturing capacity to meet demands will depend very largely on the possibility of export business being available. Should this come in large quantity, because of im-

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proved financial conditions, unquestionably the capacity of the industry on this continent would be taxed.

There is nothing at the moment to indicate a lower world level in price of raw materials, and in all probability the value of leather and leather products will be fully maintained throughout the year.

COSTS OF PRODUCTION ARE VERY HIGH

By Beardmore & Co.

Immediately upon the cessation of hostilities, the general impression throughout the trade was that there would be a fall in values in the hide markets, and that prices would gradually recede until they approached something like normal conditions, and some tanners even went so far as to state that, in their opinion, something in the nature of a slump would take place.

Anticipations in this direction were certainly realized in a minor degree, that is, it was possible to purchase certain raw materials at less money than had been ruling during the last year of the war; and furthermore, there was a decided falling off in the market on certain classes of finished leather.

To everyone's surprise, however, an advance in the price of hides set in during the early spring, which continued steadily until values reached a point far in excess of any that had ruled during the whole of the war, leather following suit, but not to such an extent, and since the spring of 1919 values have been anything from 20 per cent. to 40 per cent. or 50 per cent. higher than they were at any time in the history of man. Since midsummer, however, there has been a gradual falling off, but even now hides are fully double the price they were before the war broke out, and even then the market was considered high as compared with values that had been ruling up to 1914.

Notwithstanding the fact that hides have slowly declined in price since the summer, it does not necessarily follow that leather will follow suit at present, as the finished article never reached a corresponding height, and during the time that the highest figures were being paid, leather was always being sold at less than cost of production, figuring on the hides which were going through the tanneries, and which had been purchased at top values. This means that hides must fall below a certain point before it will affect the market for leather, and in any case, tanners are bound to suffer a loss on the leather which they had made out of hides purchased during the early part of last summer.

The Canadian tanning industry is very largely dependent upon imported raw material, tanning extracts and most of the hides for sole, and also skins for light leathers, being purchased from abroad, and all these have to be negotiated either in New York funds or foreign exchange bought through New York, and bearing New York exchange rate. A tanner is handicapped in producing cheap leather for the domestic trade, as this item has to be added to cost of production.

The exchange situation has seriously interfered with the exporting of Canadian leather to Europe where a large trade was done both before and during the war, as owing to the low value of the pound sterling, firms on the other side of the Atlantic have to look for markets where their money possesses greater purchasing power, and it might truthfully be said that the abnormal rate of exchange has temporarily paralyzed the export trade between this continent and the United Kingdom.

With regard to future prospects, there is not the slightest doubt but that if the pound sterling was of higher value as compared with American currency, an enormous demand would spring up very shortly from across the water, as the stocks in England and the continental countries must be very low.

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HEAVY WORK HARNESS IN DEMAND

By B. F. Ackerman
President, B. F. Ackerman Son & Co., Limited, Peterborough

Our experience with regard to labor is that we are not experiencing any particular difficulty, and this also applies to raw materials. Transportation facilities seem to be about normal, but we have of course been very much hampered in making prompt deliveries to our customers, owing to recent railway regulations of shortening up the hours for the acceptance of freight and the reduced express service. General operating conditions are about normal. We have increased our output from a monetary standpoint, but the volume remains about the same.

We find in the saddlery business that the demand for fine products has fallen off very considerably, but for heavy work harness the demand seems to be about normal. We have had some export business, having shipped a considerable quantity of workmen's boots to London, England, but we consider this as only a temporary business which was caused by conditions in England being such that goods of this kind were almost impossible to obtain at the moment. Ordinarily, we do not think we can compete with English manufacturers in the manufacture of boots.

We look for an average amount of business throughout the present spring, and as a matter of fact we find rather a variation in the demand for our goods. If, however, there should be a rapid decline in the price of leather, doubtless considerable business will be cancelled, but we do not anticipate anything serious in the way of loss of business from this source.

CONDITIONS HAVE BEEN CLOSE TO NORMAL

By James D. Trees
Samuel Trees & Co., Limited, Toronto

Our business, roughly speaking, is divided into three parts as far as the saddlery trade is concerned. First, saddlery hardware, which covers all the trimmings that are used in the manufacture of harness. For many years quite a large part of these trimmings were brought in from Great Britain and the United States, but since the war began, owing to the conditions in these two countries, there has been practically very little hardware brought in from either country, and the result has been that our three Canadian factories in Whitby, St. Catharines, and Gananoque, have benefited by this condition, and have been able to adapt themselves to handle promptly and efficiently all the business that has been offered to them.

The second division of our business is the leather industry, which we use in the manufacture of harness and horse collars. This is entirely manufactured in Canada now, and, while prices have advanced from time to time, we have had no difficulty in getting supplies of all the leather that we have required, although at times we have had to wait for certain special kinds.

The third division is the manufacture of horse blankets, in which we use large quantities of plain hessians, striped jute cloths, and cotton ducks. During the war period we were able to get all the jute that we required from Dundee up until the end of 1917, but conditions during 1918 were very bad for getting supplies. During 1919 things have improved very much, and we have been able to get all our supplies that we required from Dundee.

In looking back over the year, we have every reason to be thankful that conditions have been so close to normal, and also to the fact that Canadian manufacturers have been able to handle two-thirds of our supplies.

We have no complaint to make in regard to labor as we have had a steady supply of skilled labor. We could have

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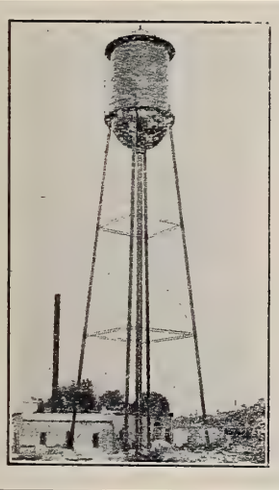
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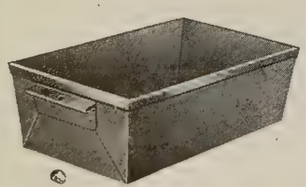
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used a few more skilled harness makers, but unfortunately there are very few men learning the trade at the present time.

Our output, generally speaking, has been normal, although our production of horse blankets has been somewhat less than usual. As far as we can see at the present time there is no weakening in the prices of any kind of commodities. Jute cloth is firmer, leather is higher, and saddlery hardware is also tending to go higher.

SADDLERY FIRM SUPPLEMENTS ITS BUSINESS

By E. F. Hutchings
President, Great West Saddlery Co., Ltd., Winnipeg

During the past year we found that labor has been very scarce. However, we have been able to produce such goods as our market required without any particular loss of business. Raw materials have also been very scarce, but in this regard we have kept going fairly well. As to transportation, we have been well served, except during the Winnipeg strike between May 15th and July 15th, when we suffered considerably during that period.

General operating conditions have been fairly satisfactory during the whole season, as none of our employees went out on strike during the big strike in Winnipeg, and they all remained loyal and true to the firm.

As to increasing our output, would say that this is very difficult for us to do, because the automobile, gasoline truck, and the gasoline motors which have been used largely by the western farmers, has been the means of cutting off considerable of our trade. The light carriage and single carriage harness is practically a thing of the past, also accessories for the light horse, but we have taken up other lines of business to make up for the loss in the above lines. Our team harness and horse collar business has largely increased during the last two years, and we have taken up automobile supplies, trunks and bags, mitts and gloves, which keeps up our volume of turnover, so that we have lost no ground, but increased a little.

Values are on the increase all the time. My own opinion is that leather goods will not get any higher, but will gradually decline. However, there is a very large demand for all kinds of leather in Europe, which will keep the prices up for some time, and we do not look forward to any sudden fall in the prices of leather or hides.

Lumbering Industry

(*Continued from page* 198)

American shipments was only fair throughout this past summer in most districts, and in some other districts a serious condition arose from lack of foreign cars to take care of lumber shipments. As regards ocean tonnage, while the Government-purchased lumber was pretty well shipped from ports on the St. Lawrence, very little was moved from ports in the Maritime Provinces, and the quantity of lumber shipped through usual channels was small owing to difficulty of securing tonnage.

Costs of operation during 1918 were very much higher than in 1917, and there will still be a further increase between 1918 and 1919. This increase is caused by wages of men in the woods and in the mills, and increased cost of provisions of all kinds.

Regarding markets, with the exception of a few months early last year, the market has been strong for all species of lumber, and I do not think you could possibly ear-mark any species as being in greater demand than another.

I fully expect that the cut of lumber during 1920 will be slightly larger than during 1919. I do not look for any new markets, and fully expect that United Kingdom, United

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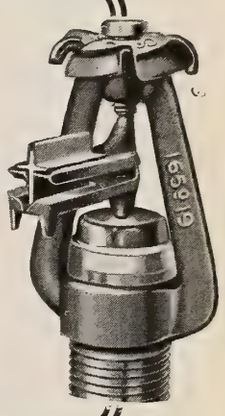
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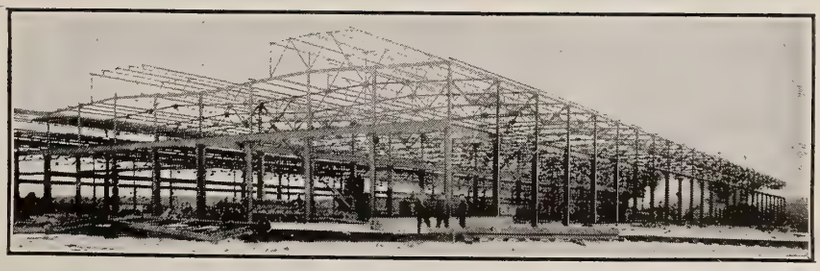
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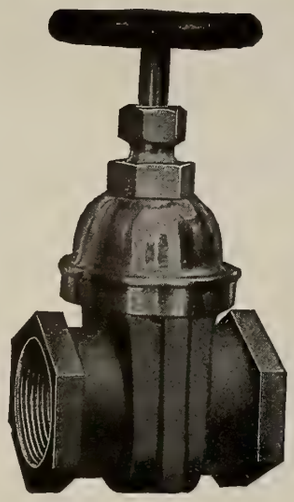
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States, and our local market will take all the lumber that will be produced. I do not think that there will be any more mills operating in 1920 than in the past year.

MUCH DEPENDS ON THE BRITISH ADMIRALTY

By W. B. Snowball

President, J. B. Snowball Co., Limited, Chatham, N.B.

Production for 1918 was slightly in advance of 1917 and a considerable improvement over previous years, and judging by the Crown Lands Reports we would say equal to the winter of 1913-14. This has been brought about to a large extent by the high prices available for lumber, which induced the owners of private-owned lands, which they had been holding for a number of years, to cut these, putting the lumber on the market.

Labor was more plentiful than in 1917 and more efficient, but yet not as efficient as previous to the war and very restless, and not as desirous of being every day on the job as they were when wages were lower, which is a disadvantage in the manufacturing industry.

The larger portion of the manufactured stock in the Maritime Provinces was sold to the British Admiralty, sales having been made from January to March of last year. This took out of the market such a large portion of the output that it made the domestic market very strong and also stock required for U.S. market brought good prices. The demand was largely for 1 inch and 2 inch. The present outlook in the U.S. market and also the domestic is good, but this will be somewhat governed by what takes place in Great Britain. What action the British Admiralty will take in regard to the large stocks they are holding in England, and Canada will be a factor for the future, and an uncertain one. Until this policy is decided upon, we do not look for any large transactions to take place, the same as they have in previous years. The condition of British exchange is also having an effect on the British market, to which we look for 75 per cent. of the output from the Maritime Provinces.

The saw-milling capacity is fully equal, if not beyond the natural growth and production of the Province, and if any enlargement is made on what at present exists, it will mean a reduction in the timber assets of the Province.

CONDITIONS IN NORTHERN NEW BRUNSWICK

By Angus McLean

Bathurst Lumber Co., Limited, Bathurst, N.B.

The cut for this locality, I would consider, would be about 60 per cent. of pre-war production, and runs a little bit lower than 1918 production, which, I would judge, would run about 65 per cent. or 66 per cent. of pre-war days.

As to the supply and efficiency of labor, I would say that we have suffered for want of labor during the entire season, and what labor we had was more or less inefficient, and there was always during the entire season more or less unrest and dissatisfaction, men seemingly not knowing what to do with themselves. Cost of operation was fully 15 per cent. higher than 1918, and about double pre-war days.

During the early part of the year the lumber market was quiet, both for domestic and export, but about midsummer the demand for domestic and for the United States markets became very active, and from that time up until the present we have had a very strong demand for all kinds of lumber, spruce being a ready seller and pine exceptionally strong.

The outlook for next year's market is exceptionally good and prices tend to a higher level, as there as there is really a shortage of lumber in almost all districts to-day. We anticipate our best demands from the Uniteed States market, and also a good demand from the Canadian market. We can not say that we consider the demand from Europe will amount to very much, owing to the fact that the rate of exchange is so much against us that we are unable to sell to Great Britain or the continent.

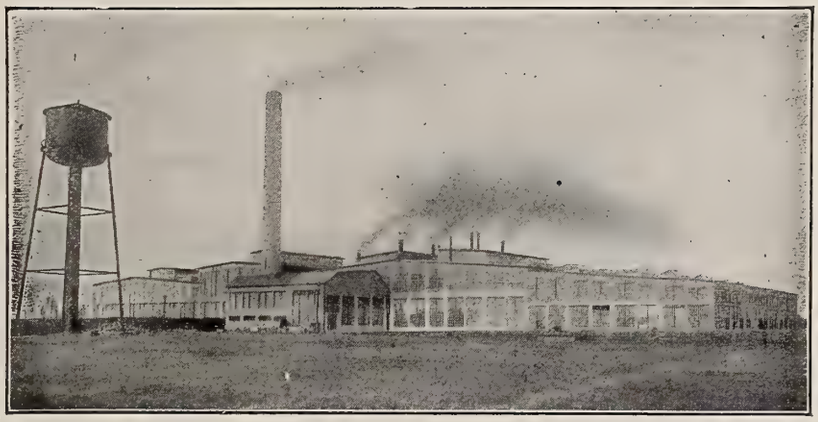


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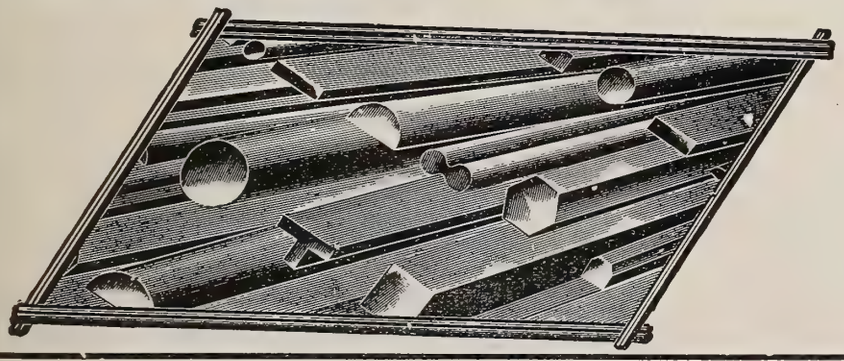
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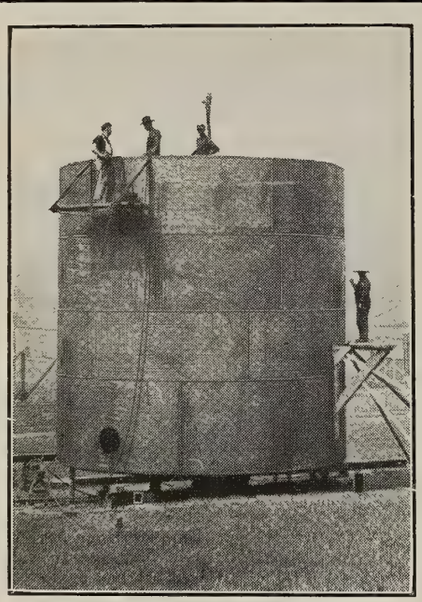
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Machinery and Metal

(*Continued from page* 179)

several years past. These consist not only of heating and ventilating apparatus, but apply to our blacksmiths', forge and blower line as well. We have a great deal of this business going to the West, in fact more than for several years past. We have also just made arrangements for handling our line in South Africa, Australia, and New York, where we already have considerable business, and are pleased to advise that we are receiving a great many export orders, particularly from South African territory.

We figure that business will be good for a number of months to come, with a tendency to a still further increase in price, due principally to the scarcity of raw material, and high prices which are being paid for same.

MACHINERY VALUES UP 100 PER CENT.

By F. Smith
The E. Long Manufacturing Co., Limited, Orillia

As regards the matter of labor supply we have found that common labor is easy to secure, but mechanics, such as machinists and pattern makers and moulders, are very hard to secure. As regards raw materials, it has been our experience, in the last six months, that raw materials are not made in all sizes. We have found it necessary to take delivery of certain sizes of material, which means considerable labor and cost to change into the proper material required. The condition exists more in regard to sizes of steel bars, plates and angles. Up to the present we have not increased our output since the armistice was signed, over and above what our output was before the war.

With regard to marketing conditions, we find the demand at the present time to be good and we are able to sell all the machinery we can manufacture at a fair price, the values of course being nearly 100 per cent. higher than they formerly were before the war. In regard to export, this firm has never exported any machinery.

As to the outlook for the next six months to one year. We are manufacturing saw-mill machinery and some mining machinery. We believe that the outlook is good and that we can manufacture all the machinery we can make and will have very little trouble in disposing of same at a reasonable profit. We are expecting to increase our production considerably within the next few months.

FAIR DEMAND FOR MACHINERY

By C. H. Waterous
Manager, The Waterous Engine Works Co., Limited, Brantford

Manufacturing conditions have been somewhat unusual for the past year—labor has not been any too plentiful, and, as generally known, has been restless. However, in this

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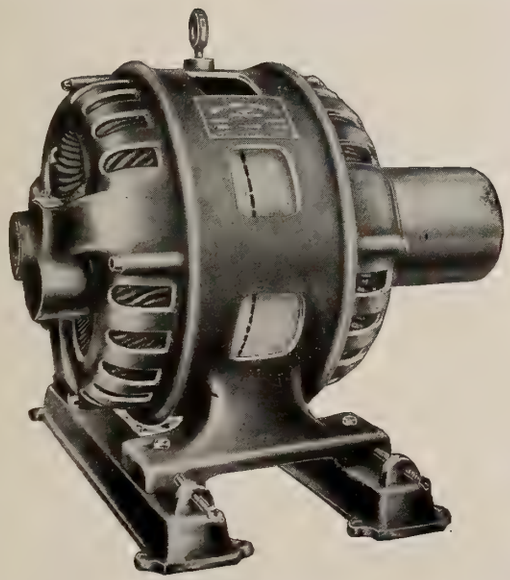
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respect I think there is an improvement. Raw materials in most instances have been scarce and difficult to procure. The steel strike, naturally, accentuated this condition in the steel market. The coal strike has added somewhat to that. However, both these strikes appear to be pretty well settled now, and we should begin to get reasonably prompt deliveries. Transportation conditions have been unusually unsatisfactory, due to the shortage of cars, motive power, and the apparent lessened interest of those employed on the railroads —in their work. This is a very universal complaint, and from our experience it seems to be true.

We find there is a very fair demand for the machinery we manufacture, principally in the way of replacing obsolete and worn-out machines, not much replacement having been done during the period of the war. This refers particularly to sawmill machinery. Pulp mill machinery has been in good demand, owing to the very great demand for paper.

The outlook, so far as we can tell for the next few months, will practically be the same as for the past six months. We can hardly look for very much change in a shorter time than this. Things are apparently righting themselves, and it should not be very long before a more definite and distinct appreciation of the future can be made.

We have not done anything towards increasing our capacity, and it will depend on what the next few months will produce. Just now we are not contemplating anything of this kind.

WOODWORKING MACHINERY PLANT WORKS OVERTIME

By G. W. Robinson

Secretary P. B. Yates Machine Co., Limited, Hamilton

There is an extreme shortage of labor, and conditions will be worse, we believe, as we enter into the new year. In respect of raw materials, the situation is bad in all lines. We are reliably informed that companies in the United States are making inquiries in Canada for steel in certain sizes, which they are unable to obtain in their own country. As to general operating conditions, we are working overtime, paying time-and-a-half for such time, and will continue so for some period. We have increased our output, and will continue to do so.

There was never the demand that there is to-day, both as to amounts and kinds, and the trend of values is upward, There have been large developments in the export field, and this business is in volume, in spite of the exchange. Unless there is a sudden collapse, which we are unable to foresee at the present moment, business during 1920, we believe, will be of a volume heretofore unheard of.

Our present plant is capable of larger output; with us, it is a question entirely of the possibilities of obtaining a sufficient amount of labor. We are not adding new lines, but rather, to answer the questions specifically, continually bringing out new and improved types in the line of woodworking machines that we do build.

OPERATIONS DEPEND ON COAL SUPPLY

By C. A. Collins

Second Vice-President, Canadian Furnace Co., Ltd., Port Colborne.

We would report that manufacturing conditions with us are normal as regards labor and raw materials. We have been troubled by shortage of cars for shipment of our product, and while we have been able thus far to operate with the fuel we had in stock, our future operations are entirely dependent upon the disposition of the coal strike and the resumption of normal shipments of fuel.

The demand for our product is good, both domestic and foreign. The trend of values is upward. We consider the outlook favorable for active business during the next few months. The only factors which might have an adverse effect seem to be the fuel and transportation situation.

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Recent Trade Enquiries

A List of Enquiries Received from Various Sources including the Canadian Trade Mission, London; the Canadian Trade Commission, Ottawa; the Department of Trade and Commerce, Ottawa; and the Commercial Intelligence Department, C.M.A., Toronto.

Domestic.

253. Wood Separators for Storage Batteries.—A Canadian firm is desirous of getting in touch with Canadian manufacturers of wood separators for storage batteries.

Foreign.

254. Wall Paper Hangings, Paint and Mill Brushes.—A Lancashire firm manufacturing paints, etc., and dealing in builders' supplies, would like to get into touch with Canadian manufacturers of wallpaper hangings; and also of painting brushes, brushes on cards and in boxes, and all descriptions of mill brushes.
255. Wire.—A Newcastle firm ask for quotations on all grades of wire suitable for rope-making purposes.
256. Wire.—A Sheffield firm is in the market for mill-drawn wire, 16-gauge galvanized iron wire, 6 to 19 gauge, annealed galvanized wire, 17 to 22 gauge, and annealed iron wire, 12 to 21 gauge.
257. Wire.—A Halifax firm asks to be placed in touch with exporters of Canadian mild steel wire, No. 25,020 Bright or annealed in 8 in. coils.
258. Furniture.—A Leeds firm are interested in offers of general domestic furniture.
259. Shop Chairs.—A Leeds firm are interested in offers of the above.
260. Mica.—A Preston firm who had been large importers of Canadian mica for some years are interested in offers of the above.
261. Household Furniture.—A Leeds firm ask to be placed in touch with exporters of the above.
262. Mica.—A Yorkshire firm ask to be placed in touch with exporters of the above.
263. Maple Roller Blocks.—A Keighley firm wish to get into touch with exporters of the above, with a view to next season's business.
264. Tinned Mattress Wire.—A Glasgow firm ask for quotations on five-ton lots of the above 22½ W.G.
265. Bobbin Wood Squares.—A Belfast firm ask to be placed in touch with exporters of birch and beech squares, 1½ x 2½ in., suitable for the manufacture of bobbins.
266. K. D. Oak Bedsteads.—An Edinburgh firm ask to be placed in touch with exporters of the above.
267. Chairs.—A Glasgow firm ask to be placed in touch with exporters of dining, kitchen and bedroom chairs.
268. Haberdashery and Smallwares, etc.—A London firm of manufacturers' agents wishes to secure the representation of Canadian manufacturers of haberdashery and smallwares, notably hooks and eyes, press studs, pins and elastic.
269. Poland, Jugo-Slavia and Ukrania.—A consulting engineer, who has lived in Canada for over fifteen years, and who speaks Polish and Serbo-Croatian correctly, desires to get into communication with Canadian manufacturers who wish to extend their trade into the new states of Poland, Jugo-Slavia and Ukrania. He has good connections in these countries, and a first-hand knowledge of the people and their needs.
270. Freight and Transport Contractors.—A Canadian concern, having offices all over the United Kingdom and in other parts of the world, is in a position to render valuable assistance to Canadian exporters with regard to their shipments. They are in a position to handle bulk or package freight of all classes, undertaking arranging of steamer space, forwarding, custom entries, insurance, etc. They can handle freight to or from any part of the world. They desire the opportunity of demonstrating the value of their service to Canadian manufacturers.
271. Condensed Milk.—A London firm desire to get into touch with Canadian suppliers of condensed milk, salmon and other fish, fruit and foodstuffs generally.
272. Tungsten.—A London firm invite quotations from Canadian producers of Tungsten.
273. Molybdenum and Tungsten.—A London company ask for the addresses of Canadian producers of Molybdenum and Tungsten.
274. Canned Corned Beef.—The London agency of a Moscow firm trading throughout Russia and Siberia ask for the addresses of Canadian producers of Canned Corned Beef.
275. Dry Goods and other Lines.—A firm in Santo Domingo, Dominican Republic, who already represent United Kingdom firms, is desirous of securing the agency of Canadian manufacturers of dry goods and other lines. Canadian bank reference available.
276. Dowels.—A London office of a Canadian manufacturing enterprise is in a position to place an order for large quantities of dowels, and is desirous of hearing from Canadian manufacturers able to offer supplies.
277. France.—A firm in Paris desire to get into communication with Canadian suppliers of steel and metal of all kinds.
278. India.—A firm in Lahore, with a good sales organization, wishes to get in touch with Canadian manufacturers who are in a position to export the following articles to India: aerated water requisites, advertisement articles, cycles and their accessories, confectionery and electrical accessories and appliances.

Canada-South Africa
Direct Service

Regular monthly sailings from Montreal in Summer and St. John, N.B., in Winter, calling at Cape Town, Algoa Bay (Port Elizabeth), East London, Port Natal (Durban) and Delagoa Bay in the order named.

Sailings 20th of each month.

All steamers fitted with refrigerators for the carriage of perishable freight.

For rates of freight and other information apply to

ELDER DEMPSTER & CO., Limited
133 BOARD OF TRADE BUILDING - - MONTREAL
Toronto Agent: S. J. SHARP, 79 Yonge St., Royal Bank Bldg.

GEO. McMURRICH SONS LIMITED
22 TORONTO STREET, TORONTO
EXPORT MARINE IMPORT
INSURANCE
INCLUDING LOSS BY MINES AND STRIKES

CANADIAN EXPORTS IN CANADIAN BOTTOMS

The people of Canada are the proprietors, through the Government, at Ottawa, of a fleet of commerce carriers designed to carry products from this Dominion to all ports on all the seven seas where Canadian goods can find a market.

Twenty-three vessels of a programme of sixty are already in service:

SAILINGS, 1920

(Subject to change without notice)

Liverpool Service.

From Halifax, N.S.

Voy.	On or about.
No. 3.—Canadian Miller	Jan. 23rd.
No. 4.—Canadian Seigneur	Feb. 23rd
No. 4—Canadian Miller	Mar. 17th.

From St. John, N.B.

No. 4—Canadian Ranger	Jan. 4th.
No. 6—Canadian Voyageur	Feb. 10th.
No. 5—Canadian Ranger	Feb. 29th

London Service.

From Halifax, N.S.

No. 2—Canadian Trooper	Jan. 17th.

From St. John, N.B.

No. 2—Canadian Navigator	Jan. 24th.
No. 3—Canadian Trooper	Feb. 28th.

Glasgow Service.

From Halifax, N.S.

No. 1—Canadian Settler	Jan. 8th.
No. 2—Canadian Aviator	Feb. 17th.
No. 2—Canadian Settler	Mar. 4th.

Buenos Aires Service.

(Calling at Pernambuco, Rio de Janeiro, Santos, Brazil, if *sufficient cargo offering.*

From Halifax, N.S.

No. 3—Canadian Pioneer	Jan. 20th.

Havana, Cuba, Service.

From Halifax, N.S.

Voy.	On or about.
No. 4—Canadian Sailor	Jan. 11th
No. 1—Sheba	Jan. 23rd.
No. 5—Canadian Trader	Feb 5th.
No. 5—Canadian Sailor	Feb. 15th.

From St. John, N.B.

No. 3—J. A. McKee	Jan. 25th.
No. 4—Canadian Adventurer	Feb. 4th.
No. 3—Canadian Sower	Feb. 10th.

Kingston, Jamaica Service.

From St. John, N.B.

No. 3—Thos. J. Drummond	Jan. 20th.
No. 5—Canadian Warrior	Jan. 31st.
No. 4—Thos. J. Drummond	Feb. 25th.
No. 6—Canadian Warrior	Mar. 7th.

Barbados, Trinidad and Demerara Service.

From Halifax, N.S.

No. 3—Canadian Signaller	Jan. 3rd.
No. 2—Canadian Gunner	Jan. 18th.
No. 4—Canadian Signaller	Feb. 19th.
No. 3—Canadian Gunner	Mar. 5th.

Australian and New Zealand Service..

(Calling at Sydney and Melbourne, Aus., and Auckland and Wellington, N.Z.).

From Vancouver, B.C.

No. 1—Canadian Importer	Jan. 15th.
No. 1—Canadian Exporter	Feb. 15th.

And regularly thereafter.

These vessels of the Canadian Government Merchant Marine, Limited, are being operated under the direction of Canadian National Railways. The two combined—rails and ships—constitute Canada's great adventure in public ownership. If shippers in Canada stand back of their own box cars and vessels the adventure will certainly be crowned with success.

GET THE "NATIONAL" HABIT

Any Canadian railway agent can furnish information about rates and space, or

D. O. WOOD,
Traffic Manager, Export and Import Dept.,
Canadian National Railways, Toronto, Ontario.

Canadian National Railways

Canadian National Railways

Minister:
Hon. W. R. Rollo

Department of Labour
. ONTARIO GOVERNMENT

Deputy Minister:
W. A. Riddell, Ph.D

Ontario Government Employment Bureaus

(Employment Service of Canada)

Well equipped offices in 36 towns and cities in Ontario

Work of all kinds.

For men and for women.

No Fees

General Superintendent: H. C. Hudson, B.A.

Labour Laws

1. The Stationary and Hoisting Engineers' Act.
   W. C. McGhie, Chairman of Board
2. The Factory, Shop and Office Building Act.
   Jas. T. Burke, Chief Inspector.
3. The Steam Boiler Act.
   D. M. Medcalf, Chief Inspector.
4. The Building Trades Protection Act.
5. The Employment Agencies Act.
6. The Bureau of Labour Act.

ANNOUNCEMENT

There will be ***no change*** in our ***policy*** during 1920. As in bygone years we will direct all our efforts to a ***large volume*** of business at ***small margins*** and a ***square deal*** to our patrons.

HOYT METAL COMPANY

MONTREAL TORONTO WINNIPEG

T H·E

Your Prosperity in 1920

That it may be deep, wide and firmly fixed is the earnest wish of the Toronto Hydro-Electric System. Let us add an expression of our sincere thanks for your very generous support and co-operation in the past.

Toronto Hydro-Electric System

226-8 Yonge Street Branch: Gerrard and Carlaw

Buyers' Guide to Canadian Manufactures

List of Articles which will Enable the Purchaser to Know the Manufacturers of Made-in-Canada Goods. For Rates of Insertion in this Department write to the Advertising Manager of INDUSTRIAL CANADA, C.M.A., Toronto, Ont.

ABATTOIR MACHINERY AND SUPPLIES
*The John Whitfield Company, Toronto, Ont.

ABRASIVES
*Coralox, Limited, Hamilton, Ont.
*Canadian Hart Wheels, Limited, Hamilton, Ont.
*Dominion Abrasive Wheel Co., New Toronto, Ont.

ACCOUNT BOOKS
*The Brown Bros., Ltd., Toronto.

ACCUMULATORS, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.

ACETYLENE GAS
*The Prest-O-Lite Company of Canada, Ltd., Toronto, Ont.

ACETYLENE GAS BURNERS
Economic Acetylene Burner Co., Toronto, Ont.
*The Prest-O-Lite Company of Canada, Ltd., Toronto, Ont.

ACID PROOF COATINGS
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

ACIDS
*The Grasselli Chemical Co., Ltd., Toronto.
*The Nichols Chemical Co., Ltd., Montreal, Que.

ADVERTISING NOVELTIES
Lawson & Jones, Ltd., London, Ont.

AERATED BEVERAGES
Charles Gurd & Co., Ltd., Montreal, Que.
J. J. McLaughlin, Ltd., Toronto.

AIR COMPRESSORS
*Canadian Ingersoll-Rand Co., Montreal, Que.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

AIR DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

ALCOHOL
*Canadian Industrial Alcohol Company, Ltd., Montreal, Que.
Hiram Walker & Sons, Limited, Walkerville, Ont.

ALUMINUM
*Northern Aluminum Co., Ltd., 1805 Traders Bank, Toronto,

ALUMINUM CASTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.

AMMONIA
Canadian Ammonia Co., Ltd., Toronto, Ont.

ANCHORS, all steel
Beauchemin & Fils, Ltd., Sorel, Que.

ANGLE BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, Que.
*The Steel Company of Canada, Ltd., Hamilton, Ont.

ARSENIC
*Deloro Smelting & Refining Co., Limited, Deloro, Ont.

ARTIFICIAL LIMBS
Chesley Artificial Limb Co., Ltd., Hantsport, N.S.

ASBESTOS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS SHEATHING
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS SHEET AND PISTON PACKINGS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS STEAM PIPE AND BOILER COVERINGS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS TEXTILES
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ATTACHMENT PLUGS
*Crouse-Hinds Co., Ltd., Toronto.

AUTOGRAPHIC REGISTERS
*Autographic Register Co., Ltd., Montreal, Que.

AUTOGRAPHIC REGISTER SYSTEMS
Business Systems, Ltd., Toronto.

AUTOMOBILE ACCESSORIES
*McKinnon Industries Limited, St, Catharines, Ont.
*Northern Electric Co., Limited, Montreal, Que.
*Tallman Brass & Metal Co., Hamilton, Ont.

AUTOMOBILE PARTS
*Dominion Forge & Stamping Co., Walkerville, Ont.
*McKinnon Industries Limited, St. Catharines, Ont.

AWNING CORD (cotton)
Hamilton Cotton Co., Hamilton, Ont.

AXLES
Canada Forge Co., Ltd., Welland, Ont.
Guelph Spring & Axle Co., Ltd., Guelph, Ont.

AXLES, carriage and automobile
Guelph Spring & Axle Co., Ltd., Guelph, Ont.

BABBITT METAL
Alonzo W. Spooner, Ltd., Port Hope, Ont.
*Hoyt Metal Co., Toronto, Ont.
*The Canada Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BACON
E. W. Fearman Co., Ltd., Hamilton, Ont.

BAGS
*Scythes & Co., Ltd., Toronto.

BAGS, Cotton
The Canadian Bag Co., Limited, Montreal, Que.

BAGS, jute
The Canadian Bag Co., Limited, Montreal, Que.
*Scythes & Co., Ltd., Toronto.

BAGS, travelling
J. Eveleigh & Co., Ltd., Montreal.
Lamontague, Ltd., Montreal, Que.
The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.

BAND RESAWS
*Canada Machinery Corporation, Limited, Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

BAND SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

BANK FITTINGS
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.

BANK AND OFFICE RAILINGS AND CAGES
*Canada Wire and Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*The Geo. B. Meadows, Toronto, Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.

BANK SIGNS AND FITTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.

BARRELS, steel, and containers
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

BARS, iron
London Rolling Mill Co., Ltd., London, Ont.

BARS, steel
London Rolling Mill Co., Ltd., London, Ont.

BASEBALL GOODS
A. J. Reach Co., Brantford, Ont.

BATHS, enamelled
Amherst Foundry Co., Ltd., Amherst, N.S.

BATTERIES, dry
The Canadian National Carbon Co., Ltd., Toronto, Ont.

BATTERIES, Flashlight
The Canadian National Carbon Co., Ltd., Toronto, Ont.

BATTERIES, Storage
The Canadian National Carbon Co., Ltd., Toronto, Ont.

BEARINGS
*The Chapman Double Ball Bearing Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BEARINGS, bronze
*Tallman Brass & Metal Co., Hamilton, Ont.

BEARINGS, pillow block and upright
*Canadian Fairbanks-Morse Company, Ltd., Montreal, Que.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BEDS, camp folding
*Otterville Mfg. Co., Ltd., Otterville, Ont.

BEEF
E. W. Fearman Co., Ltd., Hamilton, Ont.

BELTING, chains
*Canadian Link-Belt Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BELTING, elevator
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.

BELTING, leather
The Beardmore Belting Co., Ltd., Toronto, Ont.
*J. L. Goodhue & Co., Danville, Que.
*Sadler & Howarth, Montreal.
*The D. K. McLaren Belting Co., Ltd., Montreal, Que.
*The J. C. McLaren Belting Co., Ltd., Montreal, Que.

BELTING, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha and Rubber Ltd., Toronto, Ont.

BELTING, stitched cotton duck
*Dominion Belting Co., Ltd., Hamilton, Ont.

BENT GOODS
The Crown Lumber Co., Woodstock, Ont.

BICYCLES AND ACCESSORIES
*Canada Cycle and Motor Co., Ltd., Toronto, Ont.

BISCUITS
The Montreal Biscuit Co., Montreal, Que.

BLACK SHEETS
*A. C. Leslie & Co., Montreal, Que.

BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
J. Walsham & Son, Ltd., Bolton, Ont,

BLANKETS, horse
Slingsby Mfg. Co., Ltd., Brantford, Ont.
J. Walsham & Son, Ltd., Bolton, Ont.

BLASTING ACCESSORIES
Canadian Explosives, Ltd., Montreal, Que.

BLEACHING POWDER
Canadian Salt Co., Ltd., Windsor Ont.

BLOWERS
*Sheldons, Ltd., Galt, Ont.
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

BOARDS, paper, fibre, press
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOATS OF ALL KINDS
Peterboro Canoe Co., Ltd., Peterboro, Ont.

BOBBINS
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.

BOILER COMPOUND
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOILER COMPOUND AND OILS
Electric Boiler Compound Co., Ltd., Guelph, Ont.

BOILER LININGS AND COVERINGS
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOILERS
*M. Beatty & Sons, Ltd., Welland, Ont.
*Darling Bros., Montreal, Que.
*Goldie & McCulloch Co., Limited, Galt, Ont.
*Lauzon Engineering Ltd., Levis, Que.
*E. Leonard & Sons, Ltd., London, Ont.
J. & R. Weir, Montreal, Que.
Taylor-Forbes Co., Ltd., Guelph,
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BOILERS, hot water or steam
Steel & Radiation Ltd., Toronto.
Warden King, Ltd., Montreal.

BOILERS, steam
Canadian Ingersoll-Rand Co., Sherbrooke, Que.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BOILERS, steam and brass work
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BOILER STANDS
Anthes Foundry Ltd., Toronto.

BOLSTERS
*Canadian Car & Foundry Co., Ltd., Montreal, Que.

BOLTS AND NUTS
*The Canadian Tube & Iron Co., Ltd., Montreal, Que.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Company of Canada, Ltd., Hamilton, Ont.
Starr Mfg. Co., Ltd., Dartmouth, N.S.

BOOKBINDERS
R. G. McLean, Toronto.
*The Brown Bros., Ltd., Toronto.
The Mortimer Co., Ltd., Ottawa, Ont.

BOOKCASES
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

BOOKCASES, sectional (Gunn)
The George McLagan Furniture Co., Ltd., Stratford, Ont.

BOOKLETS
R. G. McLean, Toronto.

BOOKS, blank
*The Brown Bros., Ltd., Toronto.

BOOTS AND SHOES
Ames-Holden-McCready, Limited, Montreal, Que.
J. Leckie Co., Ltd.
The John Ritchie Co., Ltd., Quebec, Que.

BOXES
*Crouse-Hinds Co., Ltd., Toronto.

BOXES, cellular board
*Hinde & Dauch Paper Co. of Canada, Limited, Toronto.
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls.

BOXES, Fibre Board
*Hinde & Dauch Paper Co. of Canada, Limited, Toronto.

BOXES, rattle and soap
The Arlington Co. of Canada, Ltd., Toronto, Ont,

BOXES, steel shop
*Steel Trough and Machine Co., Ltd., Tweed, Ont.

BOXES AND SHOOKS, wooden
The C. Beck Mfg. Co., Ltd., Penatanguishene, Ont.

*For Display Advertisement see Index, Pages 313-314

BOXES, wooden
G. & J. Esplen, Montreal, Que.
Barchard & Co., Ltd., Toronto.
BOXBOARDS, for making paper boxes
*Canada Boxboard Co., Limited, Montreal, Que.
BRAIDS AND TRIMMINGS
The Moulton Mfg. Co., Limited, Montreal, Que.
BRAKE SHOES
*Canadian Hart Wheels, Limited, Hamilton, Ont.
BRAKE SHOE BACKS
*The John Whitfield Company, Toronto, Ont.
BRANDS, burning
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
BRASS BOLTS AND NUTS
*Tallman Brass & Metal Co., Hamilton, Ont.
BRASS AND BRONZE WIRE
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
BRASS, BRONZE and ALUMINUM LETTERS
*Tallman Brass & Metal Co., Hamilton, Ont.
BRASS ENGRAVERS
Pritchard, Andrews Co, of Ottawa, Ltd., Ottawa, Ont.
BRASS FOUNDERS AND FINISHERS
*The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
BRASS GOODS
*The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Mueller Mfg. Co,, Sarnia, Ont.
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
*The Kerr Engine Co., Limited, Walkerville, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
BRASS PLATES
Geo. Booth & Son, Toronto.
*Tallman Brass & Metal Co., Hamilton, Ont.
BRASS RODS
*Tallman Brass & Metal Co., Hamilton, Ont.
BRASS RODS, SHEETS AND PLATES
*Brown's Copper and Brass Rolling Mills, Ltd,, New Toronto.
BRASS SHEETS AND PLATES
*Dominion Copper Products Company, Ltd., Montreal, Que.
BRASS SIGNS AND MEMORIALS
*Tallman Brass & Metal Co., Hamilton, Ont.
BRASS TUBING, seamless
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Company, Ltd., Montreal, Que.
BRASS WIRE
Canadian Seamless Wire Co., Ltd., Toronto.
*Tallman Brass & Metal Co., Hamilton, Ont.
BRASS WORK, church
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
BRASS WORK, special
Bawden Machine Co., Ltd., Toronto, Ont.
*H. Mueller Mfg. Co., Ltd., Sarnia, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
BRICK
*Interprovincial Pressed Brick Co. of Canada, Limited, Toronto.
National Brick Co. of Laprairie, Laprairie, Que.
Port Credit Brick Co., Port Credit, Ont.
The Citadel Brick & Paving Block Co., Ltd., Quebec, Que.
BRICK, enamel
National Brick Co. of Laprairie, Laprairie, Que.
BRICK, pressed
National Brick Co. of Laprairie, Laprairie, Que.
The Citadel Brick & Paving Block Co., Ltd., Quebec, Que.
BRICK, rubbing
*Canadian Hart Wheels, Limited, Hamilton, Ont.
BRICK, sewer.
National Brick Co. of Laprairie, Laprairie, Que.
BRIDGES, Railway and Highway
Canadian Des Moines Steel Co., Limited, Chatham.
*Hamilton Bridge Works Co., Ltd,, Walkerville, Ont.
*The Canadian Bridge Co., Ltd., Hamilton, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*Dominion Bridge Co., Montreal.
*Mackinnon Steel Co., Ltd., Sherbrooke, Que.
*Manitoba Bridge & Iron Works, Ltd., Winnnpeg, Man,
BROOMS
Simms, T. S., & Co., Limited, St. John, N.B.
Stevens-Hepner Co., Limited, Port Elgin, Ont.
BRONZE SHEETS AND PLATES
*Dominion Copper Products Company, Ltd., Montreal.
BRONZE SHEETS, RODS, PLATES
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.
BRONZE TUBING, seamless
*Dominion Copper Products Company, Limited, Montreal,
BRUSHES
Simms, T. S., & Co., Limited, St. John, N.B.
Stevens-Hepner Co., Ltd., Port Elgin, Ont.
BRUSHES, carbon
Canadian National Carbon Co., Ltd., Toronto.
BUCKET TANKS
*MacKinnon Steel Co., Ltd,, Sherbrooke, Que.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
BUCKLES, shoe and coat
Parmenter & Bulloch Co., Limited, Gananoque, Ont.
BUCKLES, harness and trunk
*McKinnon Industries, Ltd., St. Catharines, Ont.
BUILDING BLOCKS, vitrified, salt glazed
Standard Clay Products, Ltd., St. Johns, Que.
BUILDING FELT AND PAPER
*Beveridge Paper Co., Ltd., Montreal.
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont,
*The Barrett Co., Ltd., Toronto and Montreal.
BURLAPS
The Canadian Bag Co., Limited, Montreal, Que.
*Scythes & Co., Ltd., Toronto.
BURLAPS, decorative
Dominion Oil Cloth Co., Limited, Montreal, Que.
CABLE ACCESSORIES
*Crouse-Hinds Co., Ltd., Toronto.
CABLES, electric light, power, telephone and telegraph
*Northern Electric Company, Limited, Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd,, Hamilton, Ont.
CABLES, transmission and telephones
*Eugene F. Phillips Electrical Works, Ltd., Montreal, Que.
*Northern Electric Company, Limited, Montreal, Que.
CABLES, transmission and cable
*Northern Electric Co., Ltd., Montreal, Que.
CABLES, wire
The Dominion Wire Rope Co., Ltd., Montreal, Que.
*The B. Greening Wire Co., Ltd., Hamilton, Ont.
CALENDARS, ADVERTISING NOVELTIES, etc.
Lawson & Jones, Ltd., London.
CAMERAS
Canadian Kodak Co., Ltd., Toronto, Ont.
CAMPERS' OUTFITTERS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
CANADA SILVER
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.
CANOES
Peterboro Canoe Co., Ltd., Peterboro, Ont.
*Canadian Canoe Co., Ltd., Peterboro, Ont.
CANS, baking powder, etc.
American Can Co., Montreal (Que.) and Hamilton (Ont.).
A. R. Whittall Can. Co., Ltd., Montreal, Que.
*MacDonald Mfg. Co., Ltd., Toronto, Ont.
CANS, fruit
American Can Co., Montreal (Que.) and Hamilton (Ont.).
A. R. Whittall Can. Co., Ltd., Montreal, Que.
*MacDonald Mfg. Co., Ltd., Toronto, Ont.
CANS, iron, lead and putty
A. R. Whittall Can. Co., Ltd., Montreal, Que.
CANS, tin
A. R. Whittall Can Co., Ltd., Montreal, Que.
American Can Co., Montreal (Que.) and Hamilton (Ont.).
*MacDonald Mfg. Co., Ltd., Toronto, Ont.
CANVAS
*Scythes & Co., Ltd., Toronto, Ont.
CAPS, cloth
John W. Peck & Co., Ltd., Montreal, Que.
CAPS FOR HUBS
*McKinnon Industries, Ltd., St. Catharines, Ont.
CARBIDE
*Canada Carbide Co., Ltd., Montreal, Que.
*Union Carbide Co. of Canada, Ltd. Works, Welland, Ont. Head Office, Toronto, Ont.
CARBONS, electric
Canadian National Carbon Co., Ltd., Toronto, Ont.
CARBONS (headlight)
*Crouse-Hinds Co., Ltd., Toronto.
CARBONIC ACID GAS
Canadian Carbonate Co., Montreal.
CARD RECORD SYSTEMS
Lowe-Martin Co., Ltd., Ottawa, Ont.
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
CARPETS AND RUGS
Toronto Carpet Mfg. Co., Limited, Toronto.
CARPETS AND RUGS, Axminster and ingrain
Toronto Carpet Mfg. Co., Ltd.
CARPETS AND RUGS, Brussels and Wilton
Toronto Carpet Mfg. Co., Ltd., Toronto, Ont.
CARPET FELTS, plain and corrugated
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
CARPET YARNS, worsted and wool
Toronto Carpet Mfg. Co., Ltd., Toronto, Ont.
CARRIAGE CASTINGS
*McKinnon Industries, Ltd., St. Catharines, Ont.
CARRIAGES, baby, etc.
Canada Furniture Manufacturers, Ltd., Woodstock, Ont.
CARRIERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
CARRIERS, box and barrel
*Canadian Mathews Gravity Carrier.
CARRIERS, brick
*Canadian Mathews Gravity Carrier Co., Limited, Toronto.
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
CARS
*Canadian Car & Foundry Co., Ltd., Montreal, Que.
*National Steel Car Co., Ltd., Hamilton, Ont.
CARS, industrial
Hammant Steel Car & Engineering Works, Hamilton, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
CARTONS, lithographed
Harris Lithographing Co., Ltd., Toronto, Ont.
CASTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.
CASTINGS, Alloy
*The Electric Steel & Metals Co., Ltd., Welland, Ont.
CASTINGS, aluminum
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Crouse-Hinds Co., Ltd., Toronto.
*Tallman Brass & Metal Co., Hamilton, Ont.
CASTINGS, brass
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Crouse-Hinds Co., Ltd., Toronto.
*Lauzon Engineering, Ltd., Levis, Que.
*Tallman Brass & Metal Co., Hamilton, Ont.
CASTINGS, brass and bronze
*Tallman Brass & Metal Co., Hamilton, Ont.
CASTINGS, grey iron
*Canadian Rumely Co., Ltd., Toronto, Ont.
*Crouse-Hinds Co., Ltd., Toronto.
*Dodge Mfg. Co., Toronto.
*Canadian Car & Foundry Co., Ltd., Montreal, Que.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*Wm. Kennedy & Sons, Ltd., Owen Sound, Ont.
*Lauzon Engineering, Ltd., Levis, Que.
CASTINGS, malleable iron
*Crouse-Hinds Co., Ltd., Toronto.
*Galt Malleable Iron Co., Ltd., Galt, Ont.
CASTINGS, steel
Beauchemin & Fils, Ltd., Sorel, Que.
*Canadian Steel Founderies, Ltd., Montreal, Que.
*Dominion Steel Foundry Co., Ltd., Hamilton, Ont.
*Electric Steel & Metals Co., Ltd., Welland, Ont.
*Hull Iron & Steel Foundry, Ltd., Hull, P.Q.
*Wm. Kennedy & Sons, Ltd., Owen Sound, Ont.
CATALOGUE MAKERS
Grip, Ltd., Toronto, Ont.
CATALOGUE COVERS, by new lithographing process
Harris Lithographing Co., Ltd., Toronto, Ont.
CAUSTIC SODA
Canadian Salt Co., Ltd., Windsor.
CAUSTICS
*Dominion Oil Co., Ltd., Hamilton.
CELLBOARD
Adams Cellboard Co., Toronto.
CEMENT GUNS
Steel & Radiation, Ltd., Toronto.
CEMENTS, High Temp.; plastic, liquid
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
CENTRIFUGAL PUMPS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
CHAINS, for elevators, conveyors and drives
*Canadian Link-Belt Co., Toronto.
CHAINS, sling
*The John Whitfield Co., Toronto.
CHAIRS
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
CHAIRS, assembly hall
Stratford Mfg. Co., Ltd., Stratford, Ont.
CHAIRS, folding
Stratford Mfg. Co., Ltd., Stratford, Ont.
CHAIRS, rattan and upholstered
Imperial Rattan Co., Ltd., Stratford, Ont.
CHAIRS FOR AUTOMOBILES, camp, boat
*McKinnon Industries, Ltd., St. Catharines, Ont.
CHECKS, swing checks, etc.
*Mueller Mfg. Co., Ltd., Sarnia, Ont.
CHEMICALS
Canadian Laboratory Supplies, Ltd., Toronto, Ont.
*Dominion Oil Co., Ltd., Hamilton, Ont.
*The Grasselli Chemical Co., Ltd., Toronto, Ont.
*The Nichols Chemical Co., Ltd., Montreal, Que.
CHEMISTS, industrial
*Milton Hersey Co., Montreal.
CHICLETS AND CHEWING GUM
Canadian Chewing Gum Co., Ltd., Toronto, Ont.

* For Display Advertisement see Index, Pages 313-314

CIRCULAR CUTTERS, solid steel
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.
CIRCULAR SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
CLAM SHELL BUCKETS
*M. Beatty & Sons, Ltd., Welland, Ont.
CLAY, Ground.
*Interprovincial Brick Co. of Canada, Limited, Toronto.
CLOCKS, time
*International Business Machines Co., Ltd., Toronto.
CLOCKS, watchmen's
*The Bennett & Wright Co., Ltd., Toronto, Ont.
CLOSET SEATS
*Goderich Organ Co., Goderich,Ont.
CLOTHING
John W. Peck & Co., Ltd., Montreal, Que.
CLOTHING, leather and sheepskin lined coats
*A. R. Clarke & Co., Ltd., Toronto.
CLOTHING, Mackinaw
The Carss Mackinaw Clothing Co., Ltd., Orillia, Ont.
CLOTHES LINES, cotton
Hamilton Cotton Co., Hamilton, Ont.
CLUTCHES
*Dodge Mfg. Co., Ltd., Toronto.
CLUTCHES, conveyors
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
COAL
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Standard Fuel Co., Toronto, Ont.
COAL CUTTERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal.
COBALT OXIDE
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
The Coniagas Reduction Co., Ltd., St. Catharines, Ont.
COBALT METAL
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
COFFEE
S. H. Ewing & Sons, Montreal.
COLD DRAWN SHAPES, flats, squares and hexagons
*The Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*Union Drawn Steel Co.. Ltd., Hamilton, Ont.
COLD STORAGE DOORS
John Hillock & Co., Ltd., Toronto.
COLLAR BUTTONS
The Arlington Co. of Canada, Ltd., Toronto, Ont.
COLLARS
The Standard Shirt Co., Ltd., Montreal, Que.
COLLARS, coated linen
Parsons & Parsons Canadian Co., Hamilton, Ont.
COLLARS, shaft
Bond Engineering Co., Toronto.
COLORS
Brandram-Henderson, Ltd., Montreal, Que.
A. Ramsay & Son Co., Montreal.
COMBS, fine dressing and name
The Arlington Co. of Canada, Ltd., Toronto, Ont.
COMMERCIAL STATIONERY
*Brown Bros., Ltd., Toronto, Ont.
CONCRETE COATINGS, PAINTS, Etc.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
CONCRETE HARDENER AND WATERPROOFER
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
CONDUITS FOR INTERIOR WIRING
*Conduits Co., Ltd., Toronto, Ont.
CONDULET BOX FITTINGS
*Crouse-Hinds Co., Ltd., Toronto.
CONDULETS (marine)
*Crouse-Hinds Co., Ltd., Toronto.
CONFECTIONERY
Ganong Bros., Ltd., St. Stephens, N.B.
Moirs, Ltd., Halifax, N.S.
The Montreal Biscuit Co., Montreal, Que.
CONTAINER BOARD—strong container
Bathurst Lumber Co., Ltd., Bathurst, N.B.
CONTRACTOR'S PLANT
*M. Beatty & Sons, Ltd., Welland, Ont.
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Ingersoll-Rand Co., Sherbrooke, Que.
CONVEYORS
*Canadian Link-Belt Co., Toronto.
*Canadian Mathews Gravity Carrier Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
COPPER
*Eugene F. Phillips, Electrical Works, Ltd., Montreal, Que.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Consolidated Mining & Smelting Co. of Canada, Ltd., Toronto.
COPPER, SHEETS, PLATES, BARS, RODS
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto, Ont.
COPPER SHEETS AND PLATES
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Co., Ltd., Montreal, Que.
COPPERSMITHS
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
COPPER TUBING, seamless
*Dominion Copper Products Co., Ltd., Montreal, Que.
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
COPPER WIRE
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
CORKS
S. H. Ewing & Sons, Montreal, Que.
CORK CARPET
Dominion Oil Cloth Co., Ltd., Montreal, Que.
CORRUGATED PAPER BOXES
*Hinde & Dauch Paper Co. of Canada, Limited, Toronto.
Adams Cellboard Co., Toronto.
Corrugated Paper Box Co., Ltd., Toronto, Ont.
*Hinde & Dauch Paper Co., Toronto, Ont.
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls,Ont.
CORUNDUM, artificial
*Coralox, Ltd., Hamilton, Ont.
CORSETS
Dominion Corset Co., Quebec, Que.
COTTONS
*Dominion Textile Co., Ltd., Montreal, Que.
*Montreal Cottons, Ltd., Valleyfield, P.Q.
COTTONADES
Hamilton Cotton Co., Hamilton, Ont.
COUPLERS
*Canadian Steel Foundries, Ltd., Welland, Ont.
COUPLINGS
Bond Engineering Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
CRANES
*Northern Crane Works, Walkerville, Ont.
*The Herbert Morris Crane and Hoist Co., Ltd., Niagara Falls, Ont.
CRANKSHAFTS
Canada Forge Co., Ltd., Welland, Ont.
*The John Whitfield Co., Toronto, Ont.
CREAM CHEESE, Ingersoll
The Ingersoll Packing Co., Ltd., Ingersoll, Ont.
CREAM SEPARATORS AND MILK CLARIFIERS
De Laval Dairy Supply Co., Peterboro, Ont.
The Renfrew Machinery Co., Ltd., Renfrew, Ont.
CREAMERY AND CHEESE FACTORY MACHINERY AND SUPPLIES
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
CREOSOTED MATERIALS
*The Barrett Co., Ltd., Toronto and Montreal.
CRUCIBLES, plumbago
Dominion Crucible Co., Ltd., Montreal, Que.
CRUSHED STONE
The Hagersville Contracting Co., Ltd., Hagersville, Ont.
CUPOLAS
*Sheldons, Ltd., Galt, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
CUPS, presentation
Standard Silver Co., Toronto, Ont.
CURLED HAIR
*Delany & Pettit, Ltd., Toronto.
CURTAINS, chenille
Hamilton Cotton Co., Hamilton, Ont.
CUTLERY
Standard Silver Co., Toronto, Ont.
CUTTERS, machine
*Pratt & Whitney Co., Dundas, Ont.
DASHES, for buggy and carriages
*McKinnon Industries, Ltd., St. Catharines, Ont.
DECALCOMANIA TRANSFERS
Canada Decalcomania Co., Toronto, Ont.
DECK PLUGS, electric marine
*Crouse-Hinds Co., Ltd., Toronto.
DENIMS
Hamilton Cotton Co., Hamilton, Ont.
DERAILS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
DESIGNERS
Ontario Engraving Co., Hamilton, Ont.
DESIGNERS AND PRINTERS OF BOOKLETS, Etc.
Grip, Ltd., Toronto, Ont.
DESKS
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
DESICCATED VEGETABLES
Grahams, Ltd., Belleville, Ont.
DINING ROOM SUITES
The George McLagan Furniture Co., Ltd., Stratford, Ont.
DIES
*Butterfield & Co.. Rock Island, P.Q.
*Pratt & Whitney Co., Dundas, Ont.
*John Whitfield Co., Toronto.
DISINFECTING APPARATUS
Spramotor Co., London, Ont.
DOOR HANGERS
*Richards Wilcox Canadian Co., Ltd., London, Ont.
DOUBLETREES
*McKinnon Industries, Ltd., St. Catharines, Ont.
DREDGES
*M. Beatty & Sons, Ltd., Welland, Ont.
DRESSING, belt
Sadler & Haworth, Montreal, Que.
DRESS AND CLOAK TRIMMINGS
J. Henry Peters Co., 1 Mincing St., Toronto, Ont.
DRIFT BOLT DRIVERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
DRILL PRESSES
*Canada Machinery Corporation, Ltd., Galt, Ont.
DRILL SHARPENERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
DRILLS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*Pratt & Whitney Co., Dundas,Ont.
DRILLS, pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
DRILLS, rock
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
DRILLS, Square or Hexagon
*Globe Engineering Co., Limited, Hamilton, Ont.
DRIFT BOLTS OR SPIKES
London Rolling Mill Co., Ltd., London, Ont.
DROP FORGINGS.
*Canadian Billings & Spencer, Ltd., Welland, Ont.
*McKinnon Industries, Ltd., St. Catharines, Ont.
DROP HAMMERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
DRUMS, steel, and containers
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
DRY COLORS
P. D. Dods & Co., Ltd., Montreal.
The Imperial Varnish & Color Co., Ltd., Toronto.
R. C. Jamieson & Co., Ltd., Montreal, Que.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
DUMB WAITERS
Turnbull Elevator Mfg. Co., Toronto, Ont.
DURABLE WIRE ROPE
The Dominion Wire Rope Co., Ltd., Montreal, Que.
DYNAMITE
Canadian Explosives, Ltd., Montreal, Que.
DYNAMOS
Consolidated Electric Co., Ltd., Toronto, Ont.
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
DYNAMOS, plating
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
EIDERDOWN
Galt Knitting Co., Ltd., Galt, Ont.
ELECTRIC APPLIANCES
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
ELECTRICAL COMPOUNDS
Standard Paint Co. of Canada, Ltd., Montreal, Que.
ELECTRIC COOKING APPLIANCES
*Canadian General Electric Company, Ltd., Toronto.
ELECTRIC LAMPS
Packard Electric Co., Ltd., Toronto, Ont.
ELECTRIC PLATE WARE
Roden Bros., Ltd., Toronto, Ont.
ELECTRIC BRANDING TOOLS
*The Clemens Electrical Corporation of Canada, Ltd., Hamilton, Ont.
ELECTRIC RAILWAY EQUIPMENT
*Crouse-Hinds Co., Ltd., Toronto.
ELECTRODES, carbon
Canadian National Carbon Co., Ltd., Toronto, Ont.
ELECTROTYPING
Central Press Agency, Ltd., Toronto.
ELECTRICAL SUPPLIES
*Canadian General Electric Company, Ltd., Toronto, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
*Jones & Moore Electric Co., Ltd.,
*Northern Electric Co., Ltd., Montreal, Que.
ELECTRIC SOLDERING IRON
*The Clemens Electrical Corporation of Canada, Ltd., Hamilton, Ont.
ELECTRO-SILVER PLATED WARE
Standard Silver Co., Toronto, Ont.
ELEVATING MACHINERY
*Canadian Link-Belt Co., Toronto.
*Canadian Mathews Gravity Carrier Co., Toronto, Ont.
ELEVATORS
*Jenckes Machine Co., Sherbrooke, Que.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
Turnbull Elevator Mfg. Co., Toronto, Ont.
*The Waterous Engine Works Co.. Ltd,, Brantford, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
ELEVATORS FOR ALL PURPOSES
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
ELEVATOR GATES AND DOORS
Turnbull Elevator Mfg. Co., Ltd., Toronto, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
ELEVATOR GUARDS
*The Geo. B. Meadows, Toronto.
Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
*Canada Wire and Iron Goods Co., Hamilton, Ont.

*For Display Advertisement see Index, Pages 313-314

EMERY DRESSERS AND STANDS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
EMERY GRINDERS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
EMERY WHEELS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
EMERY WHEEL GUARDS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
ENAMELS
R. C. Jamieson & Co., Ltd., Montreal, Que.
The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
ENAMEL MANUFACTURERS AND DECORATORS
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
ENAMEL AND TIN WARE
McClary Mfg. Co., London, Ont.
ENGINES
*E. Leonard & Sons, Limited, London, Ont.
*Goldie & McCulloch Co., Lt., Galt, Ont.
J. & R. Weir, Montreal, Que.
*Lauzon Engineering, Ltd., Levis, Que.
*Sheldons, Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
ENGINES, gas and gasoline
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Goold - Shapley - Muir Co., Ltd., Brantford, Ont.
*Hamilton Motor Works, Ltd., Hamilton, Ont.
London Gas Power Co., Limited, London, Ont.
*Massey-Harris Co., Ltd., Toronto.
ENGINES, gasoline, tractor, plowing and threshing
*Sawyer-Massey Co., Ltd., Hamilton, Ont.
ENGINES, hoisting
*M. Beatty & Sons, Welland, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
ENGINES, marine, gasoline and kerosene
Bruce, Stewart & Co., Ltd., Charlottetown, P.E.I.
ENGINES, steam plowing and threshing
*Sawyer-Massey Co., Ltd., Hamilton, Ont.
ELECTRICAL AND GAS FIXTURES
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
*Tallman, Brass & Metal Co., Hamilton, Ont.
ELECTRIC HEATING APPLIANCES
*Canadian General Electric Co., Ltd., Toronto, Ont.
ENGRAVERS, photo
Grip, Ltd., Toronto, Ont.
Ontario Engraving Co., Hamilton, Ont.
The Mortimer Co., Ltd., Ottawa.
ENGRAVERS, half-tone
Grip, Ltd., Toronto.
Ontario Engraving Co., Hamilton, Ont.
ENGRAVERS, wood
Ontario Engraving Co., Hamilton, Ont.
ENGRAVERS AND PRINTERS steel plate
American Bank Note Co., Ottawa, Ont.
ENGRAVERS AND PRINTERS bank note
American Bank Note Co., Ottawa, Ont.
ENGRAVING
*J. L. Jones Engraving Co., Toronto, Ont.
ENGRAVING, copper and steel plate
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
ENSILAGE AND STRAW CUTTERS
J. Fleury's Sons, Aurora, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
EVAPORATED APPLES
Grahams, Ltd., Belleville, Ont.

ENVELOPES
Barber-Ellis Co., Ltd., Toronto.
Canada Envelope Co., Montreal, Que.
EVENERS, for 2, 3, 4, 6 and 8 horses
*McKinnon Industries, Ltd., St. Catharines, Ont.
EXCELSIOR
*Delany & Pettit, Ltd., Toronto.
EXCELSIOR PADS
Parmenter & Bulloch Co., Ltd., Gananoque, Ont.
EXPERTS IN PATENT CAUSES
Ridout & Maybee, Toronto, Ont.
EXPLOSIVES, high
Canadian Explosives, Ltd., Montreal, Que.
FACE PLATE JAWS
Ker & Goodwin, Brantford, Ont.
FACTORY SUPPLIES, cheese and creamery
De Laval Dairy Supply Co., Ltd., Montreal, Que.
FANS
*Sheldons, Ltd., Galt, Ont.
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
FARM POWER & LIGHT PLANTS
*Northern Electric Company, Limited, Montreal, Que.
FASTENERS, belt
*Sadler & Haworth, Montreal, Que.
FELTS, pulp and paper makers
Ayers, Ltd., Lachute Mills, P.Q.
*Beveridge Paper Co., Ltd., Montreal, Que.
FENCES AND GATES
*Dennis Wire & Iron Works Co., London, Ont.
*Canada Wire & Iron Goods Co., Hamilton, Ont.
FENCING AND GATES, woven wire
*Canada Wire and Iron Goods Co., Hamilton, Ont.
FENCING, wire
C. H. Johnson & Sons, Ltd., Montreal, Que.
FENDERS, for buggy and carriages
*McKinnon Industries, Ltd., St. Catharines, Ont.
FIBRE PAILS
*The E. B. Eddy Co., Ltd., Hull, Que.
FIBRE, Vulcanized
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
FIBREBRICK, Plastic, jointless
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
FILES
Henry Disston & Sons, Ltd., Toronto, Ont.
*The Nicholson File Co., Port Hope.
FILING CABINETS
*Office Specialty Co., Newmarket, Ont.
FILING EQUIPMENT, wood & steel
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
FILING SYSTEMS
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
Lowe-Martin Co., Ltd., Ottawa, Ont.
FIRE ALARMS
*Northern Electric Co., Ltd., Montreal, Que.
FIRE BRICK
Dominion Fire Brick & Clay Products, Ltd., Moose Jaw, Sask.
FIRE BRICK AND CLAY
Dominion Fire Brick & Clay Products, Ltd., Moose Jaw, Sask.
FIRECLAY
Jas. W. Foley & Co., St. John, N.B.
FIRE DOOR HARDWARE
Richards Wilcox Canadian Co., Ltd., London, Ont.
FIRE DOORS
*A. B. Ormsby Co., Ltd., Toronto.
*The Pedlar People, Ltd., Oshawa, Ont.
FIRE ENGINES
*Waterous Engine Works Co., Ltd., Brantford, Ont.
FIRE ESCAPES
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.

FIRE EXTINGUISHERS
*A. B. Ormsby Co., Ltd., Toronto.
*Booth-Coulter Copper & Brass Co., Ltd., Montreal, Que.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
FIRE FIGHTING APPARATUS
*Waterous Engine Works Co., Ltd., Brantford, Ont.
FIRE HOSE
*Canadian Consolidated Rubber Co. of Canada, Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber, Ltd., Toronto, Ont.
FIRE PREVENTION MATERIAL
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*Eureka Mineral Wool & Asbestos Co., Toronto.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
FIRE PROOF WINDOWS AND DOORS
*A. B. Ormsby Co., Ltd., Toronto.
*Pedlar People, Ltd., Oshawa, Ont.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
FIRE PROTECTION SYSTEMS
Canadian Des Moines Steel Co., Limited, Chatham.
FIRE SPRINKLER SYSTEMS
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
*Purdy Mansell Co., Toronto, Ont.
*H. G. Vogel Co., Montreal, Que.
FIRE AND WATER DEPARTMENT
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
The Garth Co., Montreal, Que.
FISH, Atlantic Sea-Foods
Maritime Fish Corporation, Ltd., Montreal, Que.
FITTINGS FOR SOIL PIPE
Anthes Foundry, Ltd., Toronto.
FITTINGS, steam
Warden King Ltd., Montreal, Que.
FIXTURES
*Crouse-Hinds Co., Ltd., Toronto.
FLAGS
*Scythes & Co., Ltd., Toronto, Ont.
FLANGES, for wheels
*McKinnon Industries, Ltd., St. Catharines, Ont.
FLOODLIGHTS, electric
*Crouse-Hinds Co., Ltd., Toronto.
FLOORING, hardwood
Seaman Kent Co., Ltd., Meaford, Ont.
FLOUR MILL MACHINERY
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
FLUE LINERS
Standard Clay Products, Ltd., St. Johns, Que.
FORGES
*Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
*Sheldons, Ltd., Galt, Ont.
FORGINGS
Canada Forge Co., Ltd., Welland, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*McKinnon Industries, Ltd., St. Catharines, Ont.
*The John Whitfield Co., Toronto.
FORGINGS, drop
*Canadian Billings & Spencer, Ltd., Welland, Ont.
*Dominion Forge & Stamping Co., Walkerville, Ont.
*McKinnon Industries, Ltd., St. Catharines, Ont.
FOUNDRY EQUIPMENT
*Northern Crane Works, Ltd., Walkerville, Ont.
FOUNTAIN FRUITS AND JUICES
J. J. McLaughlin, Ltd., Toronto.
FOUNTAINS, drinking
*Mueller Mfg. Co., Ltd., Sarnia, Ont.
FRICTION CLUTCH PULLEYS
*Dodge Mfg. Co., Ltd., Toronto.
FROGS AND CROSSINGS, manganese
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
FUEL
Standard Fuel Co., Toronto, Ont.
FUR GARMENTS, men's and women's
Holt, Renfrew, Ltd., Quebec.

FUR GOODS
John W. Peck & Co., Ltd., Montreal, Que.
FUR TRIMMINGS, ornaments and buttons
J. Henry Peters Co., 1 Mincing St., Toronto, Ont.
FURNACES
McClary Mfg. Co., London, Ont.
The Jas. Smart Mfg. Co., Ltd., Brockville, Ont.
FURNITURE, hall
The George McLagan Furniture Co., Ltd., Stratford, Ont.
FURNITURE, office
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.
FURNITURE, reed and rattan
Imperial Rattan Co., Ltd., Stratford, Ont.
FUSE BOXES
*Crouse-Hinds Co., Ltd., Toronto.
FUSE PLUGS AND FUSES, refillable
*The Clemens Electrical Corporation of Canada, Ltd., Hamilton, Ont.
FUSES
*Economy Fuse & Mfg. Co., Montreal, Que.
GALVANIZED IRON
*A. C. Leslie & Co., Montreal.
GALVANIZED SHEETS
*Dominion Sheet Metal Co., Hamilton, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
GALVANIZERS
Acme Stamping & Tool Works, Ltd., Hamilton, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*The Pedlar People, Ltd., Oshawa.
*McKinnon Industries, Ltd., St. Catharines, Ont.
GASOLINE ENGINES
*Ontario Wind & Pump Co., Ltd., Toronto, Ont.
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
London Gas Power Co., London, Ont.
GASOLINE FIRE ENGINES
*Waterous Engine Works Co., Ltd., Brantford, Ont.
GASOLINE STORAGE SYSTEMS, special underground
S. F. Bowser & Co., Toronto.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
GASOLINE
*The Imperial Oil Co., Ltd., Toronto, Ont.
GAUGES
*Brown Engineering Corporation, Toronto, Ont.
*John Whitfield Co., Toronto.
GEARS, cut
*Brown Engineering Corporation, Toronto, Ont.
*Hamilton Gear and Machine, Toronto.
*Winnipeg Gear & Engineering Co., Ltd., Winnipeg, Man.
*The John Whitfield Co., Toronto.
GELATINE
Canada Gelatine Co., Ltd., Brantford, Ont.
GENERATORS
*Canadian Crocker - Wheeler Co., Ltd., St. Catharines, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
GENERATORS, electric
*Canadian General Electric Co., Ltd., Toronto.
GILDING METAL
*Dominion Copper Products Co., Ltd., Montreal, Que.
GLASSWARE
Dominion Glass Co., Ltd., Montreal, Que.
GLASSWARE, cut
Roden Bros., Ltd., Toronto.
GLASS FOR BUILDINGS
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLASS BENDERS
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLASS, mirror
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLOVES AND MITTS
*A. R. Clarke & Co., Ltd., Toronto.
Craig, Cowan Co., Ltd., Toronto.

*For Display Advertisement see Index, Pages 313-314

GLUE
Canada Glue Co., Ltd., Brantford, Ont.
*Delany & Pettit, Ltd.. Toronto.
GOLD-FILLED WIRE AND PLATE
Canadian Seamless Wire Co., Toronto, Ont.
GOLD AND SILVER REFINERS
Canadian Seamless Wire Co., Toronto, Ont.
GRAIN CRUSHERS, rapid, easy
J. Fleury's Sons, Aurora, Ont.
GRAPE JUICE
J. J. McLaughlin, Ltd., Toronto.
The Welch Co., Ltd., St. Catharines, Ont.
GRATES
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
GRATES, revolving, anticlinker
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
GRAVITY CARRIERS
*Canadian Mathews Gravity Carrier Co., Toronto, Ont.
GREASES
*Dominion Oil Co., Ltd., Hamilton, Ont.
GRILLES, metal
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
GRINDER, bench
Bond Engineering Co., Toronto.
GRINDERS, portable
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
GRINDERS, pedestal and bench
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
GRINDING AND POLISHING MACHINERY
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
GRINDING WHEELS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
*The Dominion Abrasive Wheel Co., Ltd., New Toronto, Ont.
GRINDSTONES
*Richards - Wilcox Canadian Co., Ltd., London, Ont.
GUARDS, conduiet
*Crouse-Hinds Co., Ltd., Toronto.
GUNN SECTIONAL BOOKCASES
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
GUY ANCHORS
B. J. Coghlin Co., Ltd., Montreal.
GUL RODS
*Crouse-Hinds Co., Ltd., Toronto.
GYPSUM, crushed
*Albert Mfg. Co., Hillsborough, N.B.
GYPSUM PRODUCTS
*Manitoba Gypsum Co., Ltd., Winnipeg, Man.
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
HACK SAW BLADES AND FRAMES
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HACK SAW MACHINES
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HALL FURNITURE
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
HAMS
F. W. Fearman Co., Ltd., Hamilton, Ont.
HAMES, steel and iron
*McKinnon Industries, Ltd., St. Catharines, Ont.
HANDLES (axe, pick, sledge hammers, etc.)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.
HANDLES, wood
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
*Toy products, Ltd., Farm Point, Que.
HAND SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HANGERS
Bond Engineering Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
HARDWARE
*Richards - Wilcox Canadian Co., Ltd., London, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.
The Jas. Smart Mfg. Co., Ltd., Brockville, Ont.
HARNESS
Lamontagne, Ltd., Montreal, Que.
HATS, men's straw
The Crown Hat Co., Ltd., Galt, Ont.
HARNESS HARDWARE
*McKinnon Industries, Ltd., St. Catharines, Ont.
HATS, ladies' and children's straw
The Crown Hat Co., Ltd., Galt, Ont.
HATS, ladies' and children's felt and beaver
The Crown Hat Co., Ltd., Galt, Ont.
HATS, ladies' felt and straw
Toronto Hat Mfg. Co., Toronto.
HAULAGE, wire rope
The Dominion Wire Rope Co., Ltd., Montreal, Que.
HEADING SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HEADLIGHT, electric
*Crouse-Hinds Co., Ltd., Toronto.
HEATERS
*Waterous Engine Works Co., Ltd., Brantford, Ont.
HEATERS, feed water
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
HEATING APPLIANCES
*C. A. Dunham Co., Ltd., Toronto.
*Sheldons, Ltd., Galt, Ont.
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
HEATING SYSTEMS
*C. A. Dunham Co., Ltd., Toronto.
HEMLOCK, union and oak sole
Breithaupt Leather Co., Ltd., Kitchener, Ont.
HESSIANS
The Canadian Bag Co., Ltd., Montreal, Que.
*Scythes & Co., Ltd., Toronto.
HINGES
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
HOISTS
*M. Beatty & Sons, Ltd., Welland, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
HOISTS, electric and pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*M. Beatty & Sons, Ltd., Welland, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
HOISTING MACHINERY
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*M. Beatty & Sons, Ltd., Welland, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
HOOKS, for logging chains
*McKinnon Industries, Ltd., St. Catharines, Ont.
HOSE, fire
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber, Ltd., Toronto, Ont.
HOSE, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
*Gutta Percha & Rubber, Ltd.
HUB CAPS
*McKinnon Industries, Ltd., St. Catharines, Ont.
HUBS, for Ford cars
*McKinnon Industries, Ltd., St. Catharines, Ont.
HYDRAULIC PRESSES
*Bawden Machine Co., Ltd., Toronto, Ont.
*William R. Perrin, Ltd., Toronto
HYDRO-ELECTRIC PLANTS
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
ICE CREEPERS
Parmenter & Bulloch Co., Ltd., Gananoque. Ont.
ICE-MAKING MACHINERY
The Linde Canadian Refrigeration Co., Ltd., Montreal, Que.
INCUBATORS AND BROODERS
Lee Mfg. Co.. Ltd., Pembroke, Ont.
INGOT METALS
*Brown's Copper & Brass Rolling Mills, Ltd., New Toronto, Ont.
INSERTED TOOTH SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
INSULATING COMPOUNDS
The Imperial Varnish & Color Co., Ltd., Toronto.
INSULATING PAPERS
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
INSULATORS
*Crouse-Hinds Co., Ltd., Toronto.
INTERLOCKING RUBBER TILING
*Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd., Toronto, Ont.
INVERTS
Standard Clay Products, Ltd., St. Johns, Que.
IRON
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
IRON, refined bar
Starr Mfg. Co., Ltd., Dartmouth, N.S.
IRON AND STEEL BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
IRON STAIRWAYS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
IRONWORK, architectural
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
*Canada Wire & Iron Goods Co., Hamilton, Ont.
IRONWORK, ornamental
*Canada Wire & Iron Goods Co., Hamilton, Ont.
IRON, LEAD AND PUTTY
A. R. Whittall, Montreal, Que.
IRON PUMPS
*Medicine Hat Pump and Brass Mfg. Co., Medicine Hat, Alta.
JACKS
*Globe Engineering Co., Ltd., Hamilton, Ont.
JAM, canned goods, etc.
E. D. Smith & Son, Ltd.
JAPANS, enamels, etc.
A. Muirhead Co., Ltd., Toronto.
The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
JIGS AND TOOLS
*Brown Engineering Corporation, Toronto, Ont.
JOINTERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
JELLY POWDER
S. H. Ewing & Sons, Montreal.
JEWELRY, enamelled souvenir
Caron Bros., Montreal, Que.
JEWELRY, gold-filled
Caron Bros., Montreal, Que.
JOIST HANGERS
*Richards - Wilcox Canadian Co., Ltd., London, Ont.
JUNCTION BOXES, cable
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
KELSEY WARM AIR GENERATOR
The Jas. Smart Mfg. Co., Limited, Brockville, Ont.
KEROSENE ENGINES
London Gas Power Co., Limited, London, Ont.
KILNS
*Sheldons, Ltd., Galt, Ont.
KINDLING
Standard Fuel Co., Toronto, Ont.
KNIFE GRINDERS
*Canada Machinery Corporation Ltd., Galt, Ont.
*W. H. Banfield & Sons, Toronto.
KNITTED GOODS
*Penman's, Ltd., Paris, Ont.
KNIVES
*Galt Knife Co., Ltd.
*The Peter Hay Knife Co., Ltd., Galt, Ont.
Simonds Canada Saw Co., Ltd., Montreal, Que.
KNIVES, pulp and paper
Henry Disston & Sons, Toronto.
*The Peter Hay Knife Co., Ltd., Galt, Ont.
KODAKS AND PHOTOGRAPHIC SUPPLIES
Canadian Kodak Co., Ltd., Toronto.
LABELS
Lawson & Jones, Ltd., London, Ont.
LABELS, lithographed
Harris Lithographing Co., Ltd., Toronto, Ont.
LABORATORY SUPPLIES
Canadian Laboratory Supplies, Ltd., Toronto.
LACE LEATHER
F. C. McCordick, St. Catharines, Ont.
*Sadler & Haworth, Montreal, Que.
*The D. K. McLaren Belting Co., Ltd., Montreal, Que.
*The J. C. McLaren Belting Co., Ltd., Montreal, Que.
LADDERS
Stratford Mfg. Co., Ltd., Stratford., Ont.
LADDERS, step
*Otterville Mfg. Co., Ltd., Otterville, Ont.
LADLES, foundry
*Northern Crane Works, Ltd., Walkerville, Ont.
LAMP GLOBES
*Crouse-Hinds Co., Ltd., Toronto.
LARD
F. W. Fearman Co., Ltd., Hamilton, Ont.
LATH
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
LATHE CHUCKS
Ker & Goodwin, Brantford, Ont.
LATHE-DOGS
Canadian Billings & Spencer, Ltd., Welland, Ont.
LATHES
*Canada Machinery Corporation, Ltd., Galt, Ont.
LAUNCHES
Peterboro Canoe Co., Ltd., Peterboro, Ont.
LAWN MOWERS
Taylor-Forbes Co., Ltd., Guelph, Ont.
LAWN SWINGS
Stratford Mfg. Co., Ltd., Stratford, Ont.
LAVATORIES, enameled
Amherst Foundry Co., Ltd., Amherst, N.S.
LAUNDRY SINKS
Amherst Foundry Co., Ltd., Amherst, N.S.
LEAD
*Consolidated Mining & Smelting Co. of Canada, Ltd., Toronto.
LEAD GRINDERS
Benjamin Moore & Co., Ltd., Toronto, Ont.
LEAD PIPE
*Hoyt Metal Co., Toronto, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
*The Canada Metal Co., Toronto.
LEAD SHEET
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
LEATHER
The Robson Leather Co., Ltd., Oshawa, Ont.
LEATHER, bookbinders'
Clarke & Clarke, Ltd., Toronto.
LEATHER DASHES & FENDERS
*McKinnon Industries, Ltd., St. Catharines, Ont.
LEATHER, fancy
Clarke & Clarke, Ltd., Toronto.
LEATHER GOODS
Lamontagne, Ltd., Montreal, Que.
LEATHER, hemlock, union and oak sole
The Breithaupt Leather Co., Ltd., Kitchener, Ont.
LEATHER, patent colt and side leather
*A. R. Clarke & Co., Ltd., Toronto.
LEATHER, sheep skin, etc.
Clarke & Clarke, Ltd., Toronto.
LEATHER, upholstering
Clarke & Clarke, Ltd., Toronto.
LEATHER, upper
A. Davis & Son., Ltd., Kingston, Ont.
King Brothers Co., Ltd., Whitby, Ont.
LIGHTS, marine, side and port
*Crouse-Hinds Co.. Ltd.. Toronto.
LINK BELT, Ewart, and sawmill riveted
*Canadian Link-Belt Co., Toronto.

* For Display Advertisement see Index, Pages 313-314

LINK BELTING
*The Dodge Mfg. Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

LINOLEUM
Dominion Oil Cloth Co., Ltd., Montreal, Que.

LITHOGRAPHED BUSINESS STATIONERY
Business Systems, Ltd., Toronto.

LITHOGRAPHERS
American Bank Note Co., Ottawa, Ont.
Harris Lithographing Co., Ltd., Toronto, Ont.
The Mortimer Co., Ltd., Ottawa, Ont.

LOCKERS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*Geo. B. Meadows, Wire, Iron and Brass Works Co., Toronto, Ont.

LOCOMOTIVE BLOCKS
Standard Clay Products, Ltd., St. Johns, Que.

LOCOMOTIVES, industrial
*Montreal Locomotive Works, Ltd., Montreal, Que.

LOCOMOTIVE & MARINE BRASS WORKS
The James Morrison Brass Mfg. Co., Ltd., Toronto.

LOGGING CHAIN HOOKS
*McKinnon Industries, Ltd., St. Catharines, Ont.

LOOSE LEAF BINDERS AND FORMS
Business Systems, Ltd., Toronto.

LOOSE LEAF SYSTEMS
Copeland-Chatterson Co., Ltd., Brampton, Ont.
Lowe-Martin Co., Ottawa, Ont.

LOOSE LEAF SUPPLIES
The Esdale Press, Ltd., Edmonton, Alta.

LUBRICATORS, steam sight feed
Penberthy Injector Co., Ltd., Windsor, Ont.

LUGS, for silos and water tanks
*Ontario Wind Engine & Pump Co., Ltd., Toronto.
*Otterville Mfg. Co., Ltd., Otterville, Ont.
*McKinnon Industries, Ltd., St. Catharines, Ont.

LUMBER
*Brown Corporation, La Tuque, Que.
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
G. & J. Esplen, Montreal, Que.

LUMBER, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

LUMBER, spruce and pine, cedar railway ties and shingles
Bathurst Lumber Co., Ltd., Bathurst, N.B.

LUMBERING BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.

LUMBER, red pine and spruce
Gillies Bros., Ltd., Braeside, Ont.

LUMBER, spruce, fir, larch and cedar
Fernie Lumber Co., Ltd., Fernie, B.C.

LUMBER, White pine
Gillies Bros., Ltd., Braeside, Ont.

MACHINE KNIVES
*Galt Knife Co., Ltd.
*E. C. Atkins & Co., Inc., Hamilton, Ont.
Henry Disston & Sons, Toronto.

MACHINE TOOLS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.

MACHINE WORK, special and repairs
*Canadian Rumely Co., Ltd., Toronto, Ont.
*The John Whitfield Co., Toronto.

MACHINERY AND UTENSILS FOR BAKERS
Fletcher Mfg. Co., Ltd., Toronto.

MACHINERY AND UTENSILS FOR CANDY
Fletcher Mfg. Co., Ltd., Toronto.

MACHINERY AND UTENSILS FOR ICE CREAM
Fletcher Mfg. Co., Ltd., Toronto.

MACHINERY, conveying
*Canadian Link-Belt Co., Toronto.
*Canadian Mathews Gravity Carrier Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

MACHINERY, flour mill
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

MACHINERY, grinding
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
J. & R. Weir, Montreal, Que.
*M. Beatty & Sons, Ltd., Welland.
*Northern Crane Works, Ltd., Walkerville, Ont.

MACHINERY, ice cream
J. J. McLaughlin, Ltd., Toronto.

MACHINERY, iron working
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.

MACHINERY, pulp mill
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

MACHINERY, punching and shearing
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.

MACHINERY, railroad and car-shop
*Canada Machinery Corporation, Ltd., Galt, Ont.
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*John Bertram & Sons Co., Ltd., Dundas, Ont.

MACHINERY, roadmaking
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
Sawyer-Massey Co., Ltd., Hamilton, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

MACHINERY, sawmill
The E. Long Mfg. Co., Ltd., Orillia, Ont.
P. Payette & Co., Pentanguishene, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Yates, P. B., Machine Co., Ltd., Hamilton, Ont.

MACHINERY, sheet metal working
Brown, Boggs Co., Ltd., Hamilton, Ont.
*Canada Machinery Corporation, Ltd., Galt, Ont.

MACHINERY, special
Bawdon Machine Co., Ltd., Toronto.
*The John Whitfield Co., Toronto, Ont.

MACHINERY, transmission
Bond Engineering Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
*Goldie & McCulloch Co., Ltd., Galt, Ont.

MACHINERY, woodworking
*Canada Machinery Corporation, Ltd., Galt, Ont.
*Yates, P. B., Machine Co., Ltd., Hamilton, Ont.
Preston Woodworking Machinery Co., Ltd., Preston, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

MACHINE WORK, special and repairs
*Canadian Rumely Co., Ltd., Toronto, Ont.
*John Whitfield Co., Toronto, Ont.

MACHINE WRENCHES
*Canadian Billings & Spencer, Ltd., Welland, Ont.

MACHINES, painting
Spramotor Co., London, Ont.

MAGNESITE
Canadian Carbonate Co., Montreal, Que.

MALLEABLE, for carriages
*McKinnon Industries, Ltd., St. Catharines, Ont.

MALLEABLE IRON CASTINGS
*McKinnon Industries, Ltd., St. Catharines, Ont.
Galt Malleable Iron Co., Ltd., Galt, Ont.

MALT
*Hiram Walker & Sons, Ltd., Walkerville, Ont.

MAPLE PRODUCTS
*Maples, Ltd., Toronto, Ont.

MARTINGALE RINGS AND SLIDE LOOPS
The Arlington Co. of Canada, Ltd., Toronto, Ont.

MATCHERS
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

MATCHES
*The E. B. Eddy Co., Ltd., Hull, Que.

MECHANICAL STOKERS
*The Jones Underfeed Stoker Co., Ltd., Toronto.

MEDICINES, patented and pharmaceutical
Dr. Ed. Morin & Cie., Ltd., Quebec.

METAL, babbitt
*Canada Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
Alonzo W. Spooner, Ltd., Port Hope, Ont.

METAL CEILINGS
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

METAL LATH
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.

METAL PACKING
*Garlock Packing Co., Hamilton, Ont.

METAL, spinning and stamping
The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.

METAL SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

METAL SHINGLES
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

METAL STAMPINGS
Canadian Cartridge Co., Ltd., Hamilton, Ont.

METERS, water
Canadian Cartridge Co., Ltd., Hamilton, Ont.

MILK DEALERS' MACHINERY AND SUPPLIES
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.

MILLBOARD, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto.

MILLING CUTTERS
Pratt & Whitney Co. of Canada, Dundas, Ont.

MINING MACHINERY
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.

MITTS AND GLOVES, Indian, tan, red deerskins
Holt, Renfrew, Ltd., Quebec, Que.
A. R. Clarke & Co., Ltd., Toronto.

MIXERS, chocolate, dough and paint
Fletcher Mfg. Co., Ltd., Toronto.

MOCCASINS AND SLIPPERS, Indian tanned leathers
Holt, Renfrew, Ltd., Quebec, Que.

MORTISERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

MOTOR CARS
*Ford Co. of Canada, Ford, Ont.

MOTORS, electric
*Canadian General Electric Co., Ltd., Toronto, Ont.

MOTORS, electric (alternating current)
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Consolidated Electric Co., Ltd., Toronto, Ont.
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*T. & H. Electric Co., Hamilton, Ont.

MOTORS, electric (direct current)
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Consolidated Electric Co., Ltd., Toronto, Ont.
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*T. & H. Electric Co., Hamilton.

MOTORS, electric (repairing)
Consolidated Electric Co., Ltd., Toronto, Ont.
*T. & H. Electric Co., Hamilton.

MOTORS, pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

MOULDERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

NAILS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

NAILS, copper
Parmenter & Bullock Co., Ltd., Gananoque, Ont.

NAILS, wire
Parmenter & Bullock Co., Ltd., Gananoque, Ont.
The Graham Nail Works, Toronto.

NAPHTHA
*The Imperial Oil Co., Ltd., Toronto, Ont.

NECK YOKES
*McKinnon Industries, Ltd., St. Catharines, Ont.

NICKEL OXIDE
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
Coniagas Reduction Co., Ltd., St. Catharines, Ont.

NICKEL METAL
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.

NIPPLES, for radiators
*McKinnon Industries, Ltd., St. Catharines, Ont.

NUTS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*United Brass & Lead, Ltd., Toronto, Ont.

OAKUM, plumbers, Canadian Navy
Factory Waste & Metal Co., Montreal, Que.
*Scythes & Co., Ltd., Toronto, Ont.

OARLOCKS
*McKinnon Industries, Ltd., St. Catharines, Ont.

OAT CRUSHERS AND FLAKERS
J. Fleury's Sons, Aurora, Ont.

OFFICE DESKS
*Goderich Organ Co., Goderich, Ont.

OFFICE EQUIPMENT
Lowe-Martin Co., Ltd., Ottawa, Ont.
*Office Specialty Co., Newmarket, Ont.

OFFICE FURNITURE
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

OILS
Brandram-Henderson, Ltd., Montreal, Que.
A. Ramsay & Son Co., Montreal, Que.
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que.

OIL FILTRATION AND CIRCULATING SYSTEMS
S. F. Bowser & Co., Toronto, Ont.

OIL STORAGE SYSTEMS, self-measuring
S. F. Bowser & Co., Toronto.

OIL COMPANIES
*Canadian Oil Cos., Toronto.
Commercial Oil Co., Ltd., Hamilton, Ont.
*Imperial Oil Co., Toronto.

OILS (petroleum products)
*British American Oil Co., Ltd., Toronto, Ont.
*Dominion Oil Co., Ltd., Hamilton, Ont.
*The Imperial Oil Co., Toronto.

***For Display Advertisement see Index, Pages 313-314**

OILS, road
*The Barrett Co., Ltd., Toronto and Montreal.
OIL HOLE COVERS
*Canadian Winkley Co., Ltd., Windsor, Ont.
OIL CUPS, both screw top and hinge lid
*Canadian Winkley Co., Ltd., Windsor, Ont.
OILCLOTHS, floor and table
Dominion Oil Cloth Co., Ltd., Montreal, Que.
ORGANS
Casavant Freres, Limitee, St. Hyacinthe, Que.
*Goderich Organ Co., Goderich, Ont.
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
ORGANS, pipe
Casavant Freres, Limitee, St. Hyacinthe, Que.
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
ORGANS, parlor
*Goderich Organ Co., Goderich, Ont.
ORNAMENTAL IRON WORK
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*The Geo. B. Meadows, Toronto Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
OVERALLS
Peerless Overall Co., Rock Island, Que.
Walker Pant & Shirt Co., Walkerville and Chatham, Ont.
The Standard Shirt Co., Ltd., Montreal, Que.
OVERCOATINGS
Rosamond Woollen Co., Almonte, Ont.
OVERHEAD RUNWAYS
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
OXY-ACETYLENE WELDING
*L'Air Liquide Society, Montreal, Que.
*The Prest-O-Lite Co., Inc., Toronto.
OXYGEN
*L'Air Liquide Society, Montreal, Que.
PACKING BOXES
Barchard & Co., Ltd., Toronto.
PACKING, engine
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Garlock Packing Co., Hamilton, Ont.
PACKING, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber Mfg. Co. of Toronto, Ltd.
Jenkins Bros., Ltd., Montreal, Que.
PAILS AND TUBS, wooden
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
PAINTERS' SUPPLIES
A. Muirhead Co., Ltd., Toronto.
PAINTS
R. C. Jamieson & Co., Ltd., Montreal, Que.
PAINTS AND VARNISHES
A. Muirhead Co., Ltd., Toronto.
Benjamin Moore & Co., Ltd., Toronto, Ont.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
The Staneland Co., Ltd., Victoria, B.C.
A. Ramsay & Sons Co., Montreal, Que.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
PAINTS, barn and bridge
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
PAINTS, preservative
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
*The Barrett Co., Ltd., Toronto and Montreal.

PANELBOARDS
*Crouse-Hinds Co., Ltd., Toronto.
PAPER, bags, all kinds
*Beveridge Paper Co., Ltd., Montreal.
PAPER, book
Barber Paper & Coating Mills, Ltd., Georgetown, Ont.
PAPER BOXES
King Paper Box Co., Ltd., Montreal, Que.
*Rudd Paper Box Co., Ltd., Toronto, Ont.
PAPER, coated, book and label
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, coated box board
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, coated cover
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, envelope
*Provincial Paper Mills, Ltd., Georgetown, Ont.
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPER, enamelled blotting
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, label
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, ledger
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPERBOARDS
*Canada Boxboard Co., Ltd., Montreal, Que.
PAPER, super-book
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPER, wall
Stauntons, Ltd., Toronto.
PAPER, waxed
Business Systems, Ltd., Toronto.
PAPER, writing
The Toronto Paper Mfg. Co., Cornwall, Ont.
Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
PAPERS, bond
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
PAPERS, building
Bathurst Lumber Co., Ltd., Bathurst, N.B.
*The Riordon Pulp & Paper Co., Montreal, Que.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
PARCHMENT PAPER, for wet packing
*Beveridge Paper Co., Ltd., Montreal.
PARK SEATS
Stratford Mfg. Co., Ltd., Stratford, Ont.
PARLOR SUNDRIES
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
PATENTS
Fetherstonhaugh & Co., Toronto.
Ridout & Maybee, Toronto, Ont.
*Harold C. Shipman & Co., Ottawa.
PATENT LITIGATION
Ridout & Maybee, Toronto, Ont.
*Harold C. Shipman & Co., Ottawa, Ont.
PATTERN MAKERS' BRASS DOWEL PINS
*Canadian Winkley Co., Ltd., Windsor, Ont.
PAY ROLL AUDITS
*International Business Machines, Ltd., Toronto, Ont.
PERFORATED METALS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
PERFORATED MUSIC ROLLS
The Otto Higel Co., Ltd., Toronto.
PERFUMES AND TOILET PREPARATIONS
Sovereign Perfumes, Ltd., Toronto.

PETROLEUM PRODUCTS
*The Imperial Oil Co., Ltd., Toronto, Ont.
PHOTO MAILERS
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.
PIANOS
Dominion Organ & Piano Co., Ltd., Bowmanville, Ont.
*Gourlay, Winter & Leeming, Toronto, Ont.
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
PIANO ACTIONS
The Otto Higel Co., Ltd., Toronto.
PIANO KEYS
The Otto Higel Co., Ltd., Toronto.
PIANOS, player
*Gourlay, Winter & Leeming, Toronto, Ont.
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
PIANO, player actions
The Otto Higel Co., Ltd., Toronto.
PIANO STOOLS AND BENCHES
*Goderich Organ Co., Goderich, Ont.
PIG IRON
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
M. A. Hanna & Co., Toronto.
PINS, society, emblems and badges
Caron Bros., Montreal, Que.
PIPE, cast iron, for water and gas
National Iron Works, Ltd., Toronto, Ont.
PIPE COUPLINGS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
PIPE COVERINGS
*Eureka Mineral Wood & Asbestos Co., Toronto, Ont.
PIPE ORGANS
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
PIPES, culvert
Standard Clay Products, Ltd., St. John's, Que.
*The Pedlar People, Ltd., Oshawa, Ont.
PIPE AND NIPPLES, black and galvanized
*Canadian Tube & Iron Co., Ltd., Montreal, Que.
PIPE, sewer
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.
Standard Clay Products, Ltd., St. John's, Que.
PIPE, soil and fittings
Anthes Foundry, Ltd., Toronto and Winnipeg.
Warden King Ltd., Montreal, Que.
PIPE AND TUBES, wrought
*Page-Hersey Iron Tube & Lead Co., Ltd., Toronto, Ont.
PISTON RODS
*The Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*Union Drawn Steel Co., Ltd., Hamilton, Ont.
PLANERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
PLANING MILLS
G. & J. Esplen, Montreal, Que.
PLASTERING TROWELS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
PLOWS
J. Fleury's Sons, Aurora, Ont.
PLUGS
*Crouse-Hinds Co., Ltd., Toronto.
PLUMBAGO, CRUCIBLES AND STOPPER HEADS
Dominion Crucible Co., Ltd., Montreal, Que.
PLUMBERS' SUPPLIES
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
PLUMBING APPLIANCES
Standard Sanitary Mfg. Co., Ltd., Toronto, Ont.
PLUMBING SUPPLIES
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
PNEUMATIC DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
PNEUMATIC MACHINERY
*Canadian Ingersoll-Rand Co., Sherbrooke, P.Q.

POLE LINE MATERIAL (wooden insulator top pins, side blocks, pole steps, cross arms)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.
POLES, flag
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
POLES, telegraph and telephone, cedar
Fernie Lumber Co., Ltd., Fernie, B.C.
PORK PACKERS AND CHEESE EXPORTERS
The Ingersoll Packing Co., Ltd., Ingersoll, Ont.
POSTS, split cedar fence
Fernie Lumber Co., Ltd., Fernie, B.C.
POULTRY SUPPLIES AND MEDICINES
Lee Mfg. Co., Ltd., Pembroke, Ont.
POWDER, blasting
Canadian Explosives, Ltd., Montreal, Que.
POWER PRESSES
Hydraulic Machinery Co., Ltd., Montreal, Que.
*William R. Perrin, Ltd., Toronto.
PRESERVATIVE PAINT
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
PRESSES, baling and filter
*William R. Perrin, Ltd., Toronto.
PRESSES, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.
PRESSES, sheet metal stamping
Brown, Boggs Co., Ltd., Hamilton, Ont.
*Canada Machinery Corporation, Ltd., Galt, Ont.
PRESSES, veneer
*Canada Machinery Corporation, Ltd., Galt, Ont.
PRESSED STEEL AND BRASS GREASE CUPS
*William R. Perrin, Ltd., Toronto.
PRINTERS
Rous & Mann, Ltd., Toronto, Ont.
The Mortimer Co., Ltd., Ottawa, Ont.
PRINTING AND LITHOGRAPHING
Lawson & Jones, Ltd., London, Ont.
PULLEYS
Bond Engineering Co., Toronto.
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
PULLEYS, wood split
*Bernard Industrial Co., Fortierville, P.Q.
PULP, bleached sulphite
The Edward Partington Pulp & Paper Co., St. John, N.B.
Riordan Sales Co., Ltd., Montreal, Que.
PULP, unbleached sulphite
Riordan Sales Co., Ltd., Montreal.
PULP, sulphate and sulphite
Bathurst Lumber Co., Ltd., Bathurst, N.B.
PULP
*Brown Corporation, La Tuque, Que.
PULP AND PAPER MILL MACHINERY
*The Hydraulic Machinery Co., Limited, Montreal.
PUMPS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
*Bawden Machine Co., Ltd., Toronto, Ont.
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*E. Leonard & Sons, Ltd., London, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
Spramotor Co., London, Ont.
*The Electric Steel & Metals Co., Ltd., Welland, Ont.
PUMPS, boiler feed
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Bawden Machine Co., Ltd., Toronto, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

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PUMPS, centrifugal
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*M. Beatty & Sons, Ltd., Welland, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Dominion Forge & Stamping Co., Ltd., Walkerville, Ont.
*Wentworth Mfg. Co., Hamilton.

PUMPS, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.

PUMPS, turbine and reciprocating
*Bawden Machine Co., Ltd., Toronto, Ont.
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

PUNCHES
*John Whitfield Co.,Toronto, Ont.
*Pratt & Whitney Co., Dundas,Ont.

PYROMETERS
*Canadian Hoskins Co., Walkerville, Ont.

RADIATORS
Taylor-Forbes Co., Ltd., Guelph, Ont.
Warden King, Ltd., Montreal, Que.

RAILINGS, brass and iron
*Dennis Wire & Iron Works Co., London, Ont.

RAILS, light
Hammant Steel Car & Engineering Works, Hamilton, Ont.

RAILWAY SIGNAL APPLIANCES
General Railway Signal Co. of Canada, Ltd., Montreal, Que.

RAILWAY SUPPLIES
*Canadian Steel Foundries, Ltd., Montreal, Que.
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
B. J. Coghlin Co., Ltd., Montreal, Que.

RAILWAY TARIFF BINDERS
The Esdale Press, Ltd., Edmonton, Alta.

READY-TO-WEAR GARMENTS, ladies'
H. C. Boulter Co., Ltd., Toronto.

REAMERS
*Pratt & Whitney Co., Dundas, Ont.
*Butterfield & Co., Rock Island, P.Q.

RECEPTACLES
*Crouse-Hinds Co., Ltd., Toronto.

REED AND RATTAN GOODS
Canada Furniture Mfgs., Ltd., Woodstock, Ont.

REFRIGERATORS
Sanderson-Harold Co., Ltd., Paris, Ont.
Lee Mfg. Co., Ltd., Pembroke, Ont.

REFRIGERATING MACHINERY
The Linde Canadian Refrigeration Co., Ltd., Montreal, Que.

REFRIGERATORS, store, homes and institutions
Ham & Nott Co., Ltd., Brantford, Ont.
John Hillock & Co., Ltd., Toronto.

REINFORCEMENT BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*Trussed Concrete Steel Co., Ltd., Walkerville, Ont.

REINFORCEMENT FOR CONCRETE
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.

REINFORCEMENT FOR CONCRETE ROOFING, metal
*The Pedlar People, Ltd., Oshawa, Ont.
*Trussed Concrete Steel Co., Ltd., Walkerville, Ont.

REVOLVING DOORS
*A. B. Ormsby Co., Ltd., Toronto.

RINGS, gold
Caron Bros., Montreal, Que.

RIVETERS, pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

RIVETS
*Canadian Tube & Iron Co., Ltd., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*Stowell Screw Co., Ltd., Montreal.

RIVETS, bifurcated and tubular
Parmenter & Bullock Co., Ltd., Gananoque, Ont.

RIVETS AND BURRS, iron, copper and brass
Parmenter & Bullock Co., Ltd., Gananoque, Ont.

ROCK DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

ROLLING STEEL DOORS
*A. B. Ormsby Co., Ltd., Toronto.

ROLL PRINTING
*Autographic Register Co., Ltd., Montreal, Que.
Business Systems, Ltd., Toronto.

ROOFING, metal
*A. B. Ormsby Co., Ltd., Toronto.

ROOFINGS, plastic, liquid, rubber
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

ROOFING, ready to lay
Pacific Roofing Co., Vancouver, B.C.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
*The Barrett Co., Ltd., Toronto and Montreal.

ROOF TRUSSES
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
*Dominion Bridge Co., Ltd., Montreal, Que.

ROPE
*Doon Twines, Ltd., Doon, Ont.
*Shurly & Derrett, Ltd., Toronto.

ROPE, cotton
Hamilton Cotton Co., Hamilton, Ont.

RUBBER FOOTWEAR
Ames Holden, McCready, Ltd., Montreal, Que.
*Gutta Percha & Rubber Ltd., Toronto, Ont.
The Miner Rubber Co., Ltd., Grandy, Que.

RUBBER GOODS
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber Limited, Toronto.

RUBBER MACHINERY
*The Hydraulic Machinery Co., Limited. Montreal.

RUBBER MOULDS
Bawden Machine Co., Ltd., Toronto, Ont.

RUBBER PACKING
*Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Garlock Packing Co., Hamilton, Ont.

RULES
The Lufkin Rule Co. of Canada, Ltd., Windsor, Ont.

SADDLERY HARDWARE
*Dominion Forge & Stamping Co., Walkerville, Ont.
*McMinnon Industries, Ltd., St. Catharines, Ont.

SAFES
*Goldie & McCulloch Co., Ltd., Galt, Ont.
J. & J. Taylor, Ltd., Toronto.

SAMPLE CASES
The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.
J. Eveleigh & Co., Ltd., Montreal, Que.

SAND RAMMERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

SANDPAPER
*Delaney & Pettit, Ltd., Toronto.

SASH CORD, cotton
Hamilton Cotton Co., Hamilton, Ont.

SALT
Canadian Salt Co., Ltd., Windsor, Ont.
Dominion Salt Co., Ltd., Sarnia, Ont.

SANITARY PAPER TOWELS
*E. B. Eddy Co., Ltd., Hull, Que.

SAVE-ALLS
*The Hydraulic Machinery Co., Limited. Montreal.

SAW SHARPENING MACHINERY
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

SAWS
*E. C. Atkins & Co., Ltd., Hamilton, Ont.
Henry Disston & Sons, Ltd., Toronto, Ont.
Shurly & Deitrich, Galt, Ont.

SAWS, cross-cut and band
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
Shurly & Deitrich, Galt, Ont.

SAWS, circular mill
Shurly & Deitrich, Galt, Ont.

SAWS, hack
*Victor Saw Works, Ltd., Hamilton, Ont.

SAWS, of all kinds
Simonds Canada Saw Co., Ltd., Montreal, Que.

SAWS, rip
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
Shurly & Deitrich, Galt, Ont.

SAWMILLS
G. & J. Esplen, Montreal, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

SAW MILL MACHINERY
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.

SAWS, specialties
*Victor Saw Works, Ltd., Hamilton, Ont.

SCALES
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
The Gurney Scale Co., Hamilton, Ont.

SCALES, counter
The Gurney Scale Co., Hamilton, Ont.

SCALES, railway track, etc.
The Gurney Scale Co., Hamilton, Ont.

SCREENS
*Canada Wire & Iron Goods Co., Hamilton, Ont.

SCREEN DOORS AND WINDOWS
Sanderson-Harold Co., Ltd., Paris, Ont.
Ham & Nott Co., Ltd., Brantford, Ont.

SCREWS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*Stowell Screw Co., Ltd., Montreal, Que.

SCREW PLATES
*Butterfield & Co., Rock Island, P.Q.

SECURITIES, engraved
American Bank Note Co., Ottawa, Ont.

SERGES
Rosamond Woollen Co., Almonte, Ont.

SEWAGE SCREENS
*The Hydraulic Machinery Co., Limited, Montreal.

SHAFTING
Canada Forge Co., Ltd., Welland, Ont.
Bond Engineering Co., Toronto.
*Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*Union Drawn Steel Co., Ltd., Hamilton, Ont.
*Dodge Mfg. Co., Ltd., Toronto.

SHANTY BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.

SHAPERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

SHEAR BLADES, iron
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.

SHEATHING
*The Barrett Co., Ltd., Toronto and Montreal.

SHEATHING, asbestos corrugated
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

SHEET METAL STAMPINGS
Acme Stamping & Tool Works, Ltd., Hamilton, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.
*W. H. Banfield & Sons, Ltd., Toronto, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

SHEETS, Etc.
*Tallhan Brass & Metal Co., Hamilton, Ont.

SHEETS, galvanized
*Dominion Sheet Metal Co., Ltd., Hamilton, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.

SHINGLES
Bathurst Lumber Co., Ltd., Bathurst, N.B.

SHINGLE SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

SHIP BUILDERS
J. & R. Weir, Montreal, Que.

SHIRTS
John W. Peck & Co., Ltd., Montreal, Que.

SHIRTS, workmen's
*A. R. Clarke & Co., Ltd., Toronto.

SHOE PEGWOOD
O. Chalifour, Quebec, Que.

SHOE LININGS
Galt Knitting Co., Ltd., Galt, Ont.

SHOES, running and athletic
Ames - Holden - McCready, Ltd., Montreal, Que.

SHOOKS
Barchard & Co., Ltd., Montreal.

SIGNAL CELLS
Canadian National Carbon Co., Ltd., Toronto.

SILENT CHAIN DRIVES
*Canadian Link-Belt Co., Toronto.

SILVER BULLION
Coniagas Reduction Co., Ltd., St. Catharines, Ont.
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.

SILVERSMITH
Canadian Wm. A. Rogers, Ltd., Toronto, Ont.
Standard Silver Co., Toronto, Ont.

SILVERWARE, sterling
Roden Bros., Ltd., Toronto, Ont.

SINGLETREES
*McKinnon Industries, Ltd., St. Catharines, Ont.

SINKS, enamelled
Amherst Foundry Co., Ltd., Amherst, N.S.

SKATES, figure
Canada Cycle & Motor Co., Ltd., Toronto, Ont.

SKATES, genuine Acme
Canada Cycle & Motor Co., Ltd., Toronto, Ont.

SKATES, hockey
Canada Cycle & Motor Co., Ltd., Toronto, Ont.

SKATES, ice
Canada Cycle & Motor Co., Ltd., Toronto, Ont.

SKIFFS
Peterboro Canoe Co., Ltd., Peterboro, Ont.

SKYLIGHTS
*A. B. Ormsby Co., Ltd., Toronto.
*The Pedlar People, Ltd., Oshawa, Ont.

SLEIGHS
Tudhope-Anderson Co., Ltd., Orillia, Ont.

SLIPPERS
Ames - Holden - McCready, Ltd., Montreal, Que.

SLOTTERS
*Canada Machinery Corporation, Ltd., Galt, Ont.

SMALL METAL STAMPINGS, in quantities
*Canadian Winkley Co., Ltd., Windsor, Ont.

SMOKE CONSUMERS
*The Jones Underfeed Stoker Co., Ltd., Toronto, Ont.

SMOKE-STACKS
*E. Leonard & Sons, Limited, London, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.

SNAPS, for harness
*McKinnon Industries, Ltd., St. Catharines, Ont.

SOAPS
J. Barsalou & Co., Ltd., Montreal.

SOAP (soft, oil)
The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que.

SOCKETS
*Crouse-Hinds Co., Ltd., Toronto.

SODA WATER FOUNTAINS
J. J. McLaughlin, Ltd., Toronto.

SODA WATER FOUNTAINS AND ACCESSORIES
Fletcher Mfg. Co., Ltd., Toronto

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SOIL PIPE
Anthes Foundry, Ltd., Toronto.
SOLDER
Alonzo W. Spooner, Ltd., Port Hope, Ont.
*Canada Metal Co., Toronto, Ont.
*Hoyt Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
SOLDER, silver
Geo. H. Lees & Co., Hamilton, Ont.
SOLDER, wire and bar
*American Can Co., Montreal, and Hamilton.
SOLDERING IRONS AND COPPERS
Brown, Boggs Co., Ltd., Hamilton.
SNOWSHOES
Holt, Renfrew, Ltd., Quebec, Que.
SPECIAL MACHINERY
*Globe Engineering Co., Ltd., Hamilton, Ont.
SPELTER
*Consolidated Mining & Smelting Co. of Canada, Ltd., Toronto.
SPIKES, railway and marine
Starr Mfg. Co., Ltd., Dartmouth, N.S.
SPINNING AND STAMPING
Tallman Brass & Metal, Ltd., Hamilton, Ont.
SPIRAL CONVEYORS
*Canadian Mathews Gravity Carrier Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
SPLIT PEAS
H. Murton, Ltd., Guelph, Ont.
SPIRITS
*Hiram Walker & Sons, Ltd., Walkerville, Ont.
SPOOLS
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
SPORTING MEDALS AND TROPHIES
Roden Bros., Ltd., Toronto, Ont.
SPRAYERS
Spramotor Co., London, Ont.
SPRING COTTERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
SPRINGS
*Canadian Steel Foundries, Ltd., Montreal, Que.
B. J. Coghlin Co., Ltd., Montreal.
Guelph Spring & Axle Co., Ltd., Guelph, Ont.
SPRINGS, carriage and automobile
Guelph Spring & Axle Co., Ltd.,
SPRING SHACKLE BOLTS
*Canadian Winkley Co., Ltd., Windsor, Ont.
John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
SPRINKLER SYSTEMS
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
*Purdy, Mansell, Ltd., Toronto.
*Vogel Co. of Canada, Ltd., Montreal, Que.
SPROCKET WHEELS
*Canadian Link Belt Co., Ltd., Toronto, Ont.
STAINS
R. C. Jamieson & Co., Ltd., Montreal, Que.
STAINS, creosote shingle
A. Muirhead Co., Ltd., Toronto.
STAMPINGS
STAMPINGS, heavy steel
Canadian Cartridge Co., Ltd., Hamilton, Ont.
STAMPS, steel, brass and rubber
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
STAMP MILLS
*Jenckes Machine Co., Sherbrooke, P.Q.
STATIONERY, office
Harris Lithographing Co., Toronto.
STEAM PIPE AND BOILER COVERINGS, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto.
STEAM SHOVELS
*M. Beatty & Sons, Ltd., Welland, Ont.
STEAM SPECIALTIES
*C. A. Dunham Co., Ltd., Toronto.
*Darling Bros., Ltd., Montreal, Que.
*Sheldons, Ltd., Galt, Ont.
STEAM TRAPS
*C. A. Dunham Co., Ltd., Toronto.
*Canadian Morehead Mfg. Co., Ltd., Woodstock, Ont.

STEEL
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
*Burlington Steel Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
STEEL BILLETS AND BLOOMS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STEEL BUILDINGS
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
*Dominion Bridge Co., Ltd., Montreal, Que.
*Maritime Bridge Co., Ltd., New Glasgow, N.S.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, P.Q.
*The Pedlar People, Ltd., Oshawa, Ont.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
STEEL CABINETS
J. & J. Taylor, Ltd., Toronto, Ont.
STEEL CASTINGS
Beauchemin & Fils, Ltd., Sorel, Que.
*Canadian Steel Foundries, Ltd., Montreal, Que.
*Dominion Steel Foundry Co., Ltd., Hamilton, Ont.
*Electric Steel & Metals Co., Ltd., Welland, Ont.
STEEL DOORS, rolling
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
STEEL FILING EQUIPMENT
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
STEEL PLATE WORK
*MacKinnon Steel Co., Limited, Sherbrooke, P.Q.
*Toronto Iron Works, Ltd., Toronto.
STEEL RODS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STEEL SASH
*Dennis Wire & Iron Works Co., London, Ont.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
STEEL SHELVING
*Dennis Wire & Iron Works Co., London, Ont.
STEEL WIRE RODS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STEEL WAGON HARDWARE
*McKinnon Industries, Ltd., St. Catharines, Ont.
STELLITE
*Deloro Smelting & Refining Co., Ltd., Deloro and Toronto.
STENCILS, brass
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
STEPS, for buggies and carriages
*McKinnon Industries, Ltd., St. Catharines, Ont.
STEREO TISSUE AND BLOTTINGS
*Beveridge Paper Co., Ltd., Montreal.
STEREOTYPING
Central Press Agency, Toronto.
STOKERS
*The Jones Underfeed Stoker Co., Ltd., Toronto, Ont.
STOOLS AND BENCHES, piano and organ
*Otterville Mfg. Co., Ltd., Otterville, Ont.
STOOLS, steel factory
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
STONE
The Hagersville Contracting Co., Hagersville, Ont.
STONEWARE
*Jas. W. Foley & Co., St. John, N.B.
STORAGE BATTERIES
*Canadian General Electric Co., Ltd., Toronto, Ont.
*Northern Electric Company, Limited, Montreal, Que.
STORE FITTINGS
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.

STOVES
Smith Foundry Co., Ltd., Fredericton, N.B.
Tudhope - Anderson Co., Ltd., Orillia, Ont.
STOVE LININGS
Standard Clay Products, Ltd., St. John's Que.
STOVES AND RANGES
Lee Mfg. Co., Ltd., Pembroke, Ont.
The Jas. Smart Mfg. Co., Ltd., Brockville, Ont.
McClary Mfg. Co., London, Ont.
STRAWS, paper drinking
Fletcher Mfg. Co., Ltd., Toronto.
STRAWBOARD
*Canada Boxboard Co., Ltd., Montreal, Que.
STREET LIGHTING FIXTURES
*Crouse-Hinds Co., Ltd., Toronto.
STRETCHERS, lace curtain
*Otterville Mfg. Co., Ltd., Otterville, Ont.
STRUCTURAL STEEL
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
*Dominion Bridge Co., Montreal.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*Manitoba Bridge & Iron Works, Ltd., Winnipeg, Man.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
STUMP EXTRACTORS
*The John Whitfield Co., Toronto.
SUIT CASES
J. Eveleigh & Co., Ltd., Montreal.
The M. Langmuir Mfg. Co. of Toronto, Ltd., Toronto, Ont.
SULPHUR BURNERS
*The Hydraulic Machinery Co., Limited, Montreal.
SUPPLY DEALERS
*The Foundation Co., Ltd., Montreal, Que.
SURFACERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
SWITCHBOARDS
*Canadian General Electric Co., Ltd., Toronto, Ont.
*Crouse-Hinds Co., Ltd., Toronto.
SWITCHES
*Crouse-Hinds Co., Ltd., Toronto.
SWITCHES, railway
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
SWITCHES AND FROGS
*Canadian Steel Foundries, Ltd., Montreal, Que.
SWITCH STANDS
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
TABLE COVERS, chenille
Hamilton Cotton Co., Hamilton, Ont.
TANKS
Canadian Des Moines Steel Co., Limited, Chatham.
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*Toronto Iron Works, Ltd., Toronto.
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
Goold - Shapley - Muir Co., Ltd., Brantford, Ont.
*E. Leonard & Sons, Ltd., London, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Maritime Bridge Co., Ltd., New Glasgow, N.S.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
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TANKS, elevated steel
Canadian Des Moines Steel Co., Limited, Chatham.
TANKS, steel storage
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
TANNERS' SUPPLIES
McClary Mfg. Co., London, Ont.
TAPS
*Butterfield & Co., Rock Island, P.Q.
*Pratt & Whitney Co., Dundas, Ont.

TAPES, measuring
The Lufkin Rule Co. of Canada, Ltd., Windsor, Ont.
TELEPHONE ACCESSORIES
*Canadian Independent Telephone Co., Toronto, Ont.
*Northern Electric Co., Ltd., Montreal, Que.
TENTS
Turner, J. J., & Sons, Peterboro, Ont.
*Scythes & Co., Ltd., Toronto, Ont.
TERMINALS, electric cable
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
TERRA ALBA
*Albert Mfg. Co., Hillsborough, N.B.
TERRA COTTA, architectural
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
TEXTILE SUPPLIES (shuttles, bobbins, spools and picker sticks)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.
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*Canadian Billings & Spencer, Ltd., Welland Ont.
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TILING, rubber
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*Gutta Percha & Rubber Ltd., Toronto, Ont.
TIME RECORDERS
*International Business Machines Co., Ltd., Toronto, Ont.
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*MacDonald Mfg. Co., Ltd., Toronto, Ont.
TIRES, bicycle, auto, carriage, truck, motorcycle.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber Ltd., Toronto, Ont.
TOILET PAPER, towels, tissues
*Beveridge Paper Co., Ltd., Montreal.
TOOLS
*The John Whitfield Co., Toronto,
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*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
TOOLS, track
B. J. Coghlin Co., Ltd., Hamilton.
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TRACK, steel, portable
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*Canadian Link Belt Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
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*The Waterous Engine Works Co., Ltd., Brantford, Ont.
TRAPS
*C. A. Dunham Co., Ltd., Toronto.
*Canadian Morehead Mfg. Co., Woodstock, Ont.
TROLLEYS
*Richard-Wilcox Canadian Co., Ltd., London, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
TRUCKS
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
The Gurney Scale Co., Hamilton.
*Northern Crane Works, Ltd., Walkerville, Ont.
TRUCKS, brick, tile and lumber
*Waterous Engine Works Co., Ltd., Brantford, Ont.
TRUCKS, motor
*National Steel Car Co., Ltd., Hamilton, Ont.
TRUCKS, warehouse and factory
The W. S. Mahaffy Co., Toronto.
TRUCKS, steel, forge and foundry
Hammant Steel Car & Engineering Works, Hamilton, Ont.

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TRUNKS
Lamontagne, Ltd., Montreal, Que.
J. Eveleigh & Co., Ltd., Montreal.
The M. Langmuir Mfg. Co. of Toronto, Ltd., Toronto.

TUBING, brass and copper
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
Canadian Seamless Wire Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Co., Ltd., Montreal, Que.

TUBING, gold and silver
Canadian Seamless Wire Co., Toronto, Ont.

TUBES, ice cream
Fletcher Mfg. Co., Ltd., Toronto.

TUMBLERS, foundry
*Northern Crane Works, Ltd., Walkerville, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

TURBINES, steam
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines.

TURBINE PUMPS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

TURPENTINE
*Brown Corporation, La Tuque, Que.

TWEEDS
Rosamond Woollen Co., Almonte, Ont.

TWINES
*Doon Twines, Ltd., Doon, Ont.
*Shurly & Derrett, Ltd., Toronto.

TWINES, binder
Brantford Cordage Co., Ltd., Brantford, Ont.

TWINES, cotton
Hamilton Cotton Co., Hamilton, Ont.

TWIST DRILLS
*John Morrow Screw & Nut Co., Ltd., Ingersoll.
*Pratt & Whitney Co. of Canada, Dundas, Ont.
*The Wilt Twist Drill Co., Ltd., Walkerville, Ont.

UNDERWEAR
Galt Knitting Co., Ltd., Galt, Ont.

UNDERWEAR, imperial
Kingston Hosiery Co., Ltd., Kingston, Ont.

UNIONS
*Dart Union Co., Ltd., Toronto.
*Otterville Mfg. Co., Ltd., Otterville, Ont.

UPHOLSTERED FURNITURE, leather and tapestries
Imperial Rattan Co., Ltd.

VALVES
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Jenkins Bros., Ltd., Montreal, Que.
*Kerr Engine Co., Ltd., Walkerville, Ont.
T. McAvity & Sons, Ltd., St. John, N.B.
*Penberthy Injector Co., Ltd., Windsor, Ont.

VALVES, for steam and water
*Jenkins Bros., Ltd., Montreal.
*Mueller Mfg. Co., Ltd., Sarnia, Ont.
*Penberthy Injector Co., Ltd., Windsor, Ont.
James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.

VALVES, pressure reducing
*Mueller Mfg. Co., Ltd., Sarnia, Ont.

VALVES, regrinding globe, angle, cross checks, swing checks
*Mueller Mfg. Co., Ltd., Sarnia, Penberthy Injector Co., Ltd., Windsor, Ont.

VALVES, regulating
*Mueller Mfg. Co., Ltd., Sarnia, Ont.

VALVES, rubber
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.

VARNISHES
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Berry Bros., Walkerville, Ont.
R. C. Jamieson & Co., Ltd., Montreal, Que.

VAULT FITTINGS, steel
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

VAULTS AND VAULT DOORS
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J. & J. Taylor, Ltd., Toronto, Ont.

VENTILATING APPLIANCES
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VENTILATING SYSTEMS
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VENTILATORS
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*The Pedlar People, Ltd., Oshawa, Ont.

VOLTMETERS AND AMMETERS
*Crouse-Hinds Co., Ltd., Toronto.

WAGONS
Tudhope Anderson Co., Ltd., Orillia, Ont.

WAGON HARDWARE
*McKinnon Industries, Ltd., St. Catharines, Ont.

WALL COPING
Standard Clay Products, Ltd., St. John's, Que.

WASHERS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*United Brass & Lead, Ltd., Toronto, Ont.

WASHERS, plate or wrought
London Rolling Mill Co., Ltd., London, Ont.

WASTES, wool and cotton
Factory Waste & Metal Co., Montreal, Que.
*Scythes & Co., Ltd., Toronto, Ont.

WATERPROOF, cement coating
Benjamin Moore & Co., Ltd., Toronto, Ont.
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
*The Barrett Co., Ltd., Toronto and Montreal.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.

WATERPROOF, caselining
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

WATER WHEELS
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.

WEBBING, elastic
Hamilton Cotton Co., Hamilton, Ont.

WEBBING, non-elastic
Hamilton Cotton Co., Hamilton, Ont.

WELDING APPARATUS AND MATERIALS
*The Presto-O-Lite Co., Toronto.

WELL-DIGGING TOOLS AND MACHINERY
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.

WHEEL FLANGES
*McKinnon Industries, Ltd., St. Catharines, Ont.

WHEELS
*Canadian Car & Foundry Co., Ltd., Montreal, Que.

WHEELS, corundum
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

WHEELS, emery
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

WELL DRILLING TOOLS AND MACHINERY
Oil Well Supply Co., Ltd., Petrolia, Ont.

WHIPS AND LASHES
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WHIPSOCKETS
*McKinnon Industries, Ltd., St. Catharines, Ont.

WHITE ARSENIC
Coniagas Reduction Co., Ltd., St. Catharines, Ont.

WHITE LEAD
Brandram-Henderson, Ltd., Montreal, Que.
A. Ramsay & Son Co., Montreal.

WINDMILLS
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*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*Medicine Hat Pump & Brass Mfg. Co., Medicine Hat, Alta.

WINDOW SHADES
Daly & Morin, Montreal, Que.

WIRE
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*Laidlaw Bale Tie Co., Ltd., Hamilton, Ont.
*Eugene F. Phillips, Electrical Works, Ltd., Montreal, Que.
The Graham Nail Works, Toronto.

WIRE BALE TIES
*Laidlaw Bale Tie Co., Ltd., Hamilton, Ont.

WIRE CLOTH
*Canada Wire & Iron Goods Co., Hamilton, Ont.
C. H. Johnston & Sons, Ltd., Montreal, Que.

WIRE, feeder and trolley
*Eugene F. Phillips, Electrical Works, Ltd., Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

WIRE GUARDS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*C. H. Johnson & Sons, Limited, Montreal, Que.

WIRE, insulated electric
*Northern Electric Co., Ltd., Montreal, Que.
*Eugene F. Phillips Electrical Works, Ltd., Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

WIRE, weatherproof
*Northern Electric Co., Ltd., Montreal, Que.
*Eugene F. Phillips Electrical Works, Ltd., Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

WIRE ROPE
*Dominion Wire Rope Co., Ltd., Montreal, Que.
*The B. Greening Wire Co., Ltd., Hamilton, Ont.

WIRE WORK
*C. H. Johnson & Sons, Limited, Montreal, Que.
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*The Geo. B. Meadows, Toronto Iron & Brass Goods Works Co., Ltd., Toronto, Ont.

WIRING DEVICES
*Crouse-Hinds Co., Ltd., Toronto.
*Northern Electric Co., Ltd., Montreal, Que.

WOOD
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WOOD BORERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

WOOD PRINTERS
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WOOD PULP, mechanical
La Cie de Pulpe de Chicoutimi, Chicoutimi, Que.

WOODBOARD
*Canada Boxboard Co., Ltd., Montreal, Que.

WOOD SHOP, general work
*Canadian Rumely Co., Ltd., Toronto, Ont.

WOOD SPLIT PULLEYS
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

WOOD STAVE PIPE
T. A. Morrison & Co., Montreal.

WOOL
*H. V. Andrews, Toronto, Ont.

WOOD TURNING
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.

WORSTED COATINGS AND SUITINGS
Rosamond Woollen Co., Almonte, Ont.

WRAPPERS, book, bottle, etc.
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.

WRENCHES
*McKinnon Industries, Ltd., St. Catharines, Ont.

WROUGHT IRON PIPE
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

WROUGHT PIPE
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

YARNS, cotton
Hamilton Cotton Co., Hamilton, Ont.

ZINC, electrical
*The Canada Metal Co., Toronto.

* For Display Advertisement see Index, Pages 313-314

Honored Veteran Employees

Smith Foundry Co., Limited, Fredericton, have Two Employees who have Served Half Century

Employees of the Smith Foundry Co., Limited, Fredericton, N.B., were entertained by the company at a banquet on December 27, the guests of honor being Fred and Isaiah Staples, who have worked for the company for fifty-two and forty-eight years respectively. Each man was presented with a cheque for $100, while fellow-employees gave them gold cuff-links. Speeches, toasts and music formed the evening's programme and announcement was made by H. A. Smith, president of the company, that the group insurance plan had been introduced. Throughout the proceedings the friendliest feeling was manifested between employers and employees.

J. A. Marven Banquets Employees

Moncton Industry has had Prosperous Year and Group Insurance is Introduced

The third annual banquet given by Mr. J. A. Marven, president J. A. Marven Co., Ltd., Moncton, N.B., to the employees of the company, took place on December 20. Announcement was made that each employee had been insured by the company. One hundred and seventy-nine employees are included, with a total of $110,000 of insurance. Mr. Marven, in his address, reviewed the progress of the year, which had been an exceptionally prosperous one, and outlined plans for further expansion. A programme of toasts, interspersed with music, was carried out, and a very enjoyable evening was spent.

Advertising Photographs

Branch of British Company Opens Office in Montreal for Color Treatment of Photographs

There has recently been formed in Montreal the Raines Co. of Canada, to act as exclusive representatives in Canada and the United States for Raines & Co., Ealing, London W., England. The latter company were the producers of the official war pictures in color, which attracted such attention throughout the world. It is not the intention of the Raines Co. of Canada to do any actual producing in this country for the present, but later on they hope to establish studios for the enlarging and coloring of photographs. They are offering their services to manufacturers in the preparation of advertising photographs, which will be absolutely true in point of color to the scenes depicted. Mr. E. T. Sampson is sales manager.

U.S. Industrial Census

Comprehensive Information to be Sought by Department of Commerce of U.S.

The Department of Commerce of the United States is preparing to take an industrial census for the calendar year 1919. This census will include statistics of capital, number of salaried employees and wage-earners, and the amounts of their salaries and wages; miscellaneous expenses and taxes; the cost of materials used; and the value of products, with quantitative and qualitative data for production in the most important classifications of industry. It will also have information in regard to manufacturing establishments and establishments of productive industry conducted under the factory system. It will also include comprehensive statistics in regard to forestry, forest products, mines, quarries, and petroleum and natural gas wells. It is the intention of the Department of Commerce to make this census of industry the most complete which has been compiled.

Shipyard Workers Foregather

Smoker held by Athletic and Social Club of Halifax Shipyards on Christmas Eve

About 150 employees of Halifax Shipyards Limited were present at a "free and easy smoker," given by the Halifax Shipyards Athletic and Social Club on Christmas Eve. The musical programme was started by a sing-song, the whole audience joining in. The rest of the programme was made up of solos, vocal and instrumental, each number being well rendered. During the first part of the programme the general manager of the Shipyards, Mr. McLurg, gave a brief address, expressing his delight at seeing so many fellow workers gathered together. Refreshments, cigars, and cigarettes were served and motion pictures were shown.

How the Ports Rank

In Totals of Exports and Imports, Montreal Stands First and St. John Second

Official figures of exports and imports for the six months ended Sept. 30, 1919, show the following results at the chief ocean ports of Canada:

	Exports.	Imports.	Total.
Montreal	$205,749,010	$99,164,626	$304,913,636
St. John	46,631,566	13,197,607	59,829,173
Halifax	21,425,176	10,122,367	31,547,543
Vancouver	15,382,757	20,261,714	35,644,471
Quebec	12,605,195	7,989,052	20,594,247

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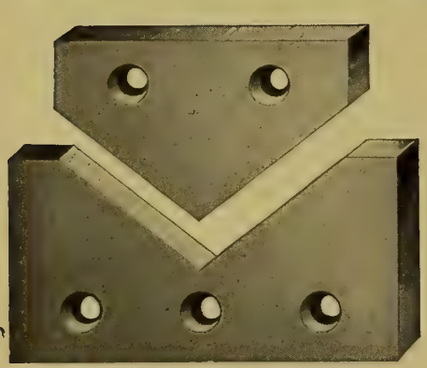
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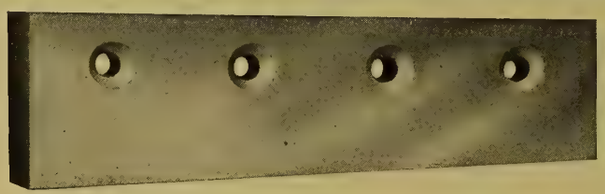
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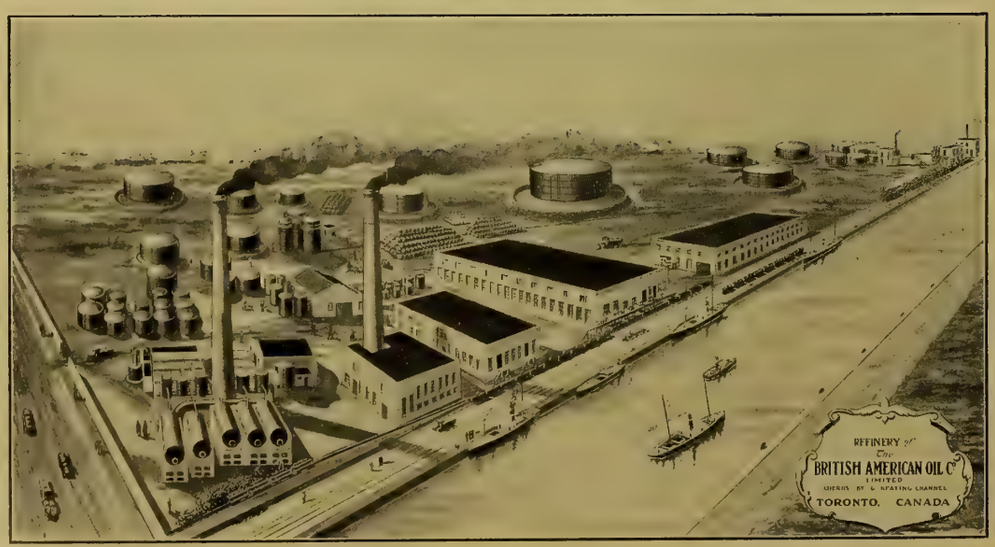


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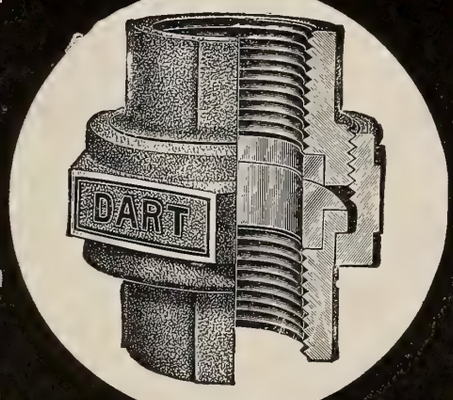
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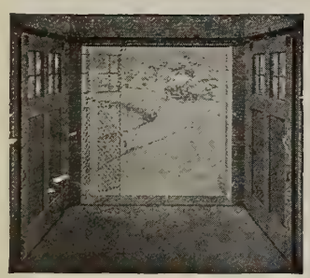


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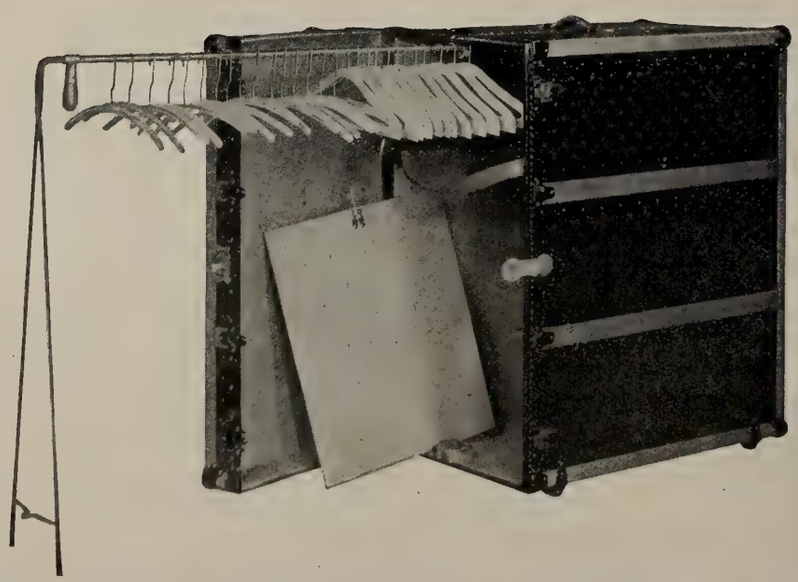
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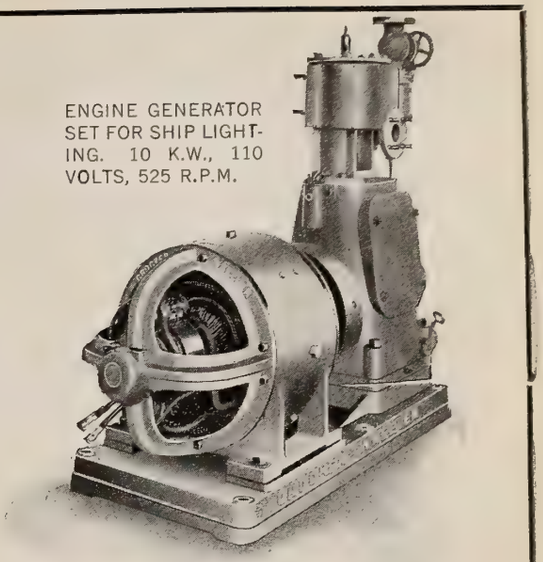
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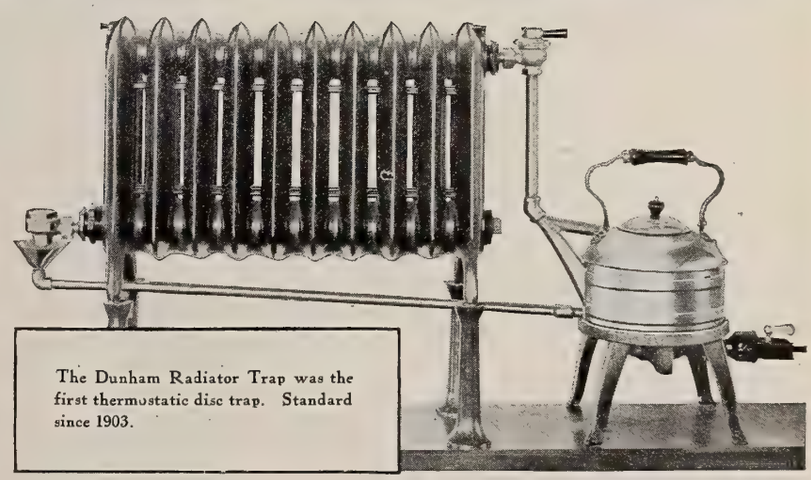
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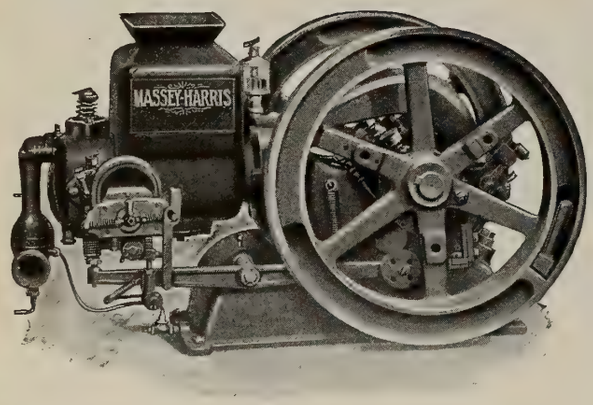


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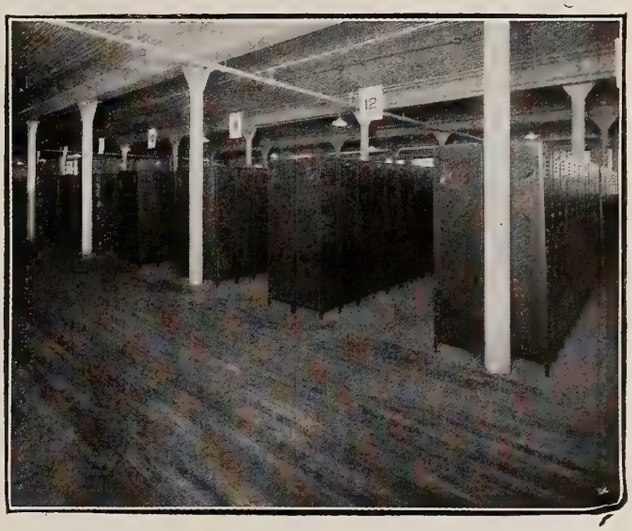
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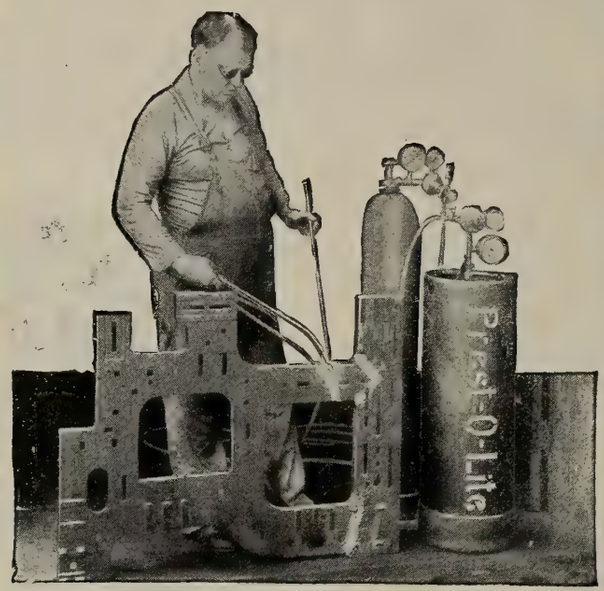
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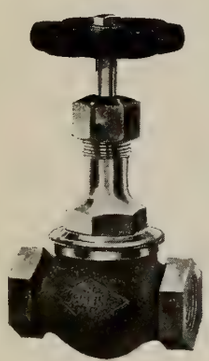
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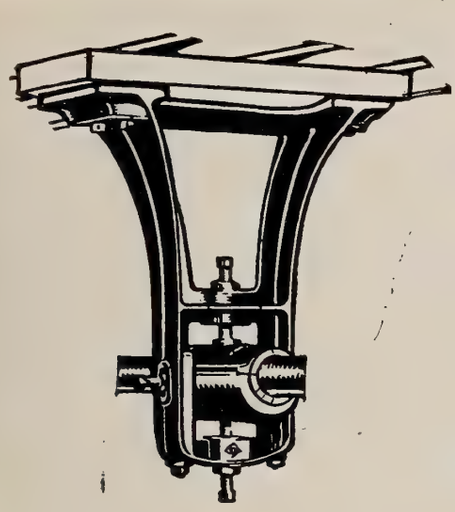
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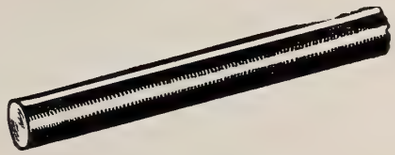
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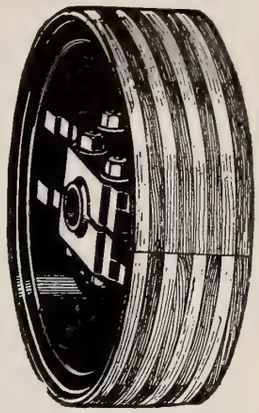
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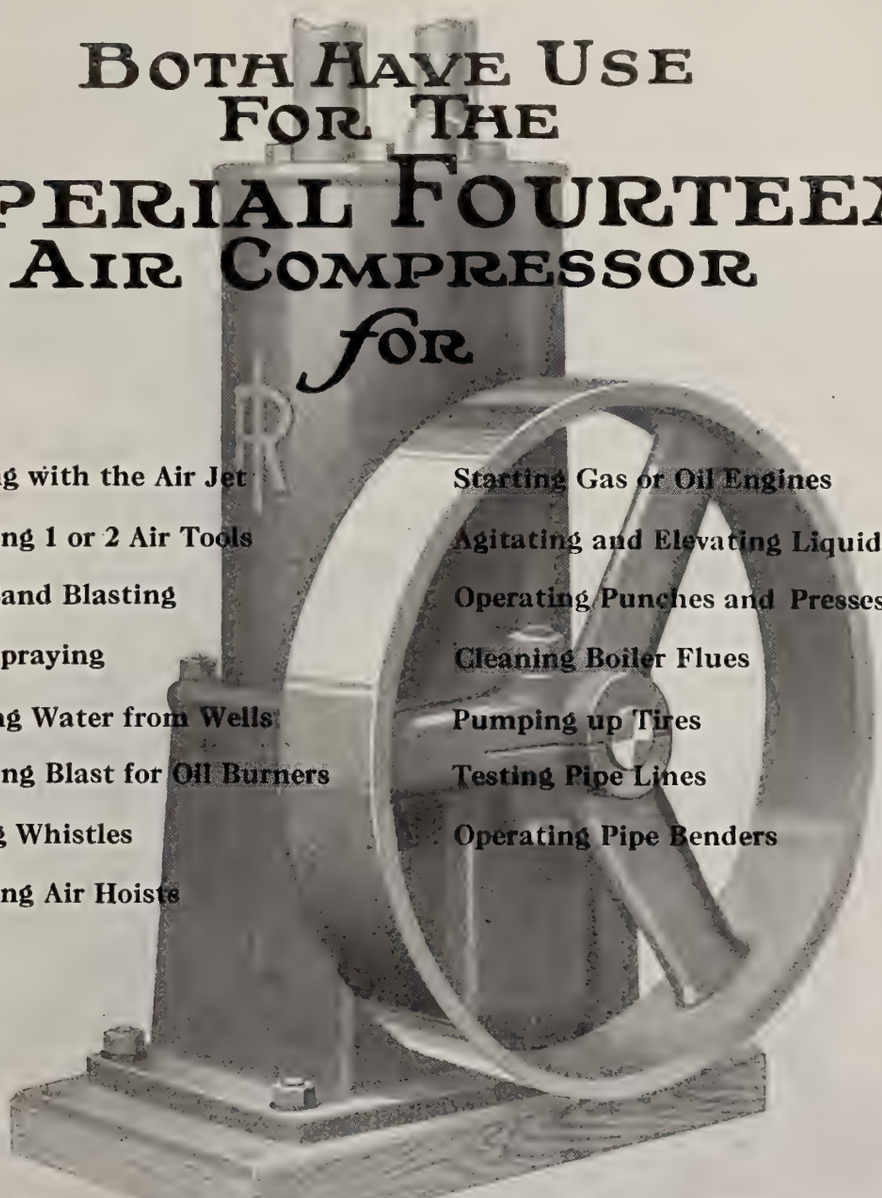
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BIG SHOPS
AND LITTLE ONES

BOTH HAVE USE FOR THE "IMPERIAL FOURTEEN" AIR COMPRESSOR FOR



Cleaning with the Air Jet
Operating 1 or 2 Air Tools
Light Sand Blasting
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Pumping Water from Wells
Supplying Blast for Oil Burners
Blowing Whistles
Operating Air Hoists
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It is the Biggest Thing in Small Air Compressors

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Canadian Ingersoll-Rand Company, Limited

Please send me Bulletin 3039 describing the "Imperial Fourteen."

Name.....

Address.....

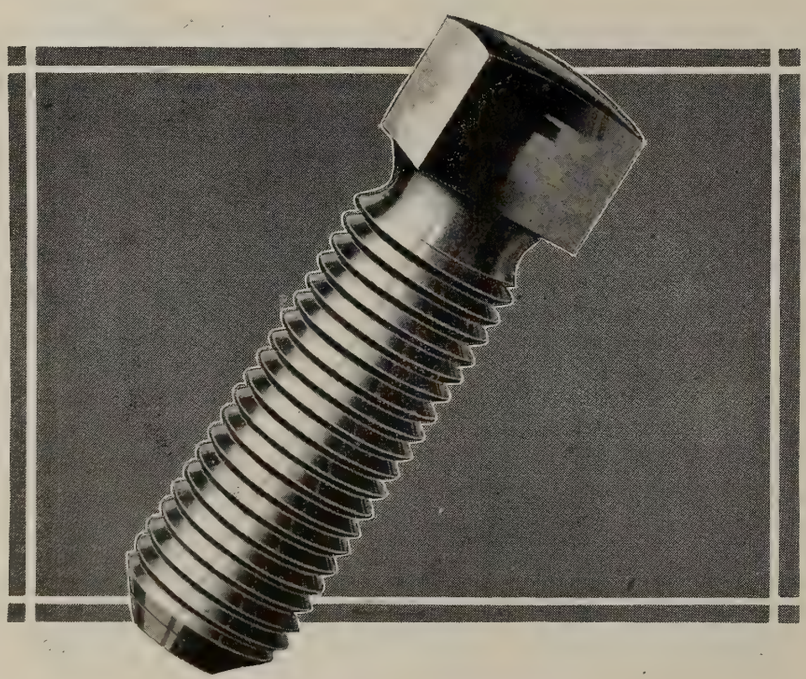
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Cap & Set Screws

S. A. E. PLAIN AND CASTELLATED NUTS

S. A. E. AND U. S. S. CAP SCREWS

U. S. S. SEMI-FINISHED NUTS U. S. S. SET SCREWS

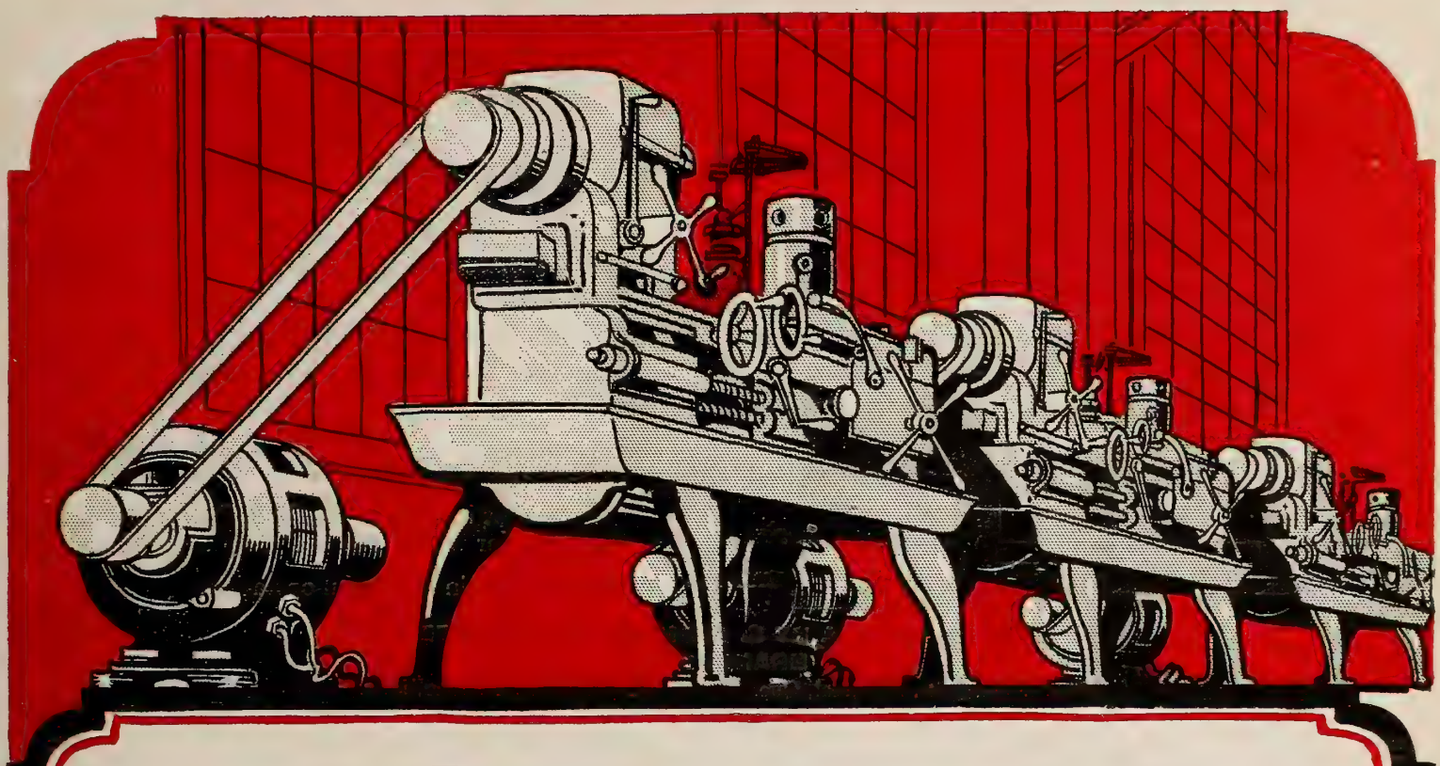


SPECIAL SCREW PRODUCTS TO SPECIFICATIONS

THE NATIONAL ACME COMPANY

MONTREAL, P.Q.

DE COURCELLES G.T.R.



Every Ounce of Energy

AMONG the most important factors in keeping production up and operation costs down is the efficient transmission and utilization of every ounce of energy developed by power-generating machinery. A high friction load means a corresponding reduction in the power available.

The burden of this rests entirely on the correct lubrication of every machine, axle, pulley and shaft. *Nothing but scientific lubrication throughout your entire mechanical equipment will enable it to contribute its full quota to the success of your business.*

Imperial Lubricants are specially designed for each type of machine under actual service conditions. Their use will bring increased income through greater production, and reduced expenses through smaller depreciation of machinery.

Imperial Lubricants are prepared with infinite care. Each one has real merit as its recommendation. There is the proper lubricant for every individual part of your machinery. They are Canadian made, and their high, uniform quality is assured by the use of only the finest crudes.

Imperial Lubrication Engineers will be glad to consult with your own engineer or mechanical superintendent in deciding the proper lubrication of your machinery. The benefit of their knowledge and experience is yours without charge or obligation.

IMPERIAL

Lubricants

For Manufacturing, Mining and Milling

CYLINDER OILS

Imperial Valve Oil
Imperial Cylinder Oil
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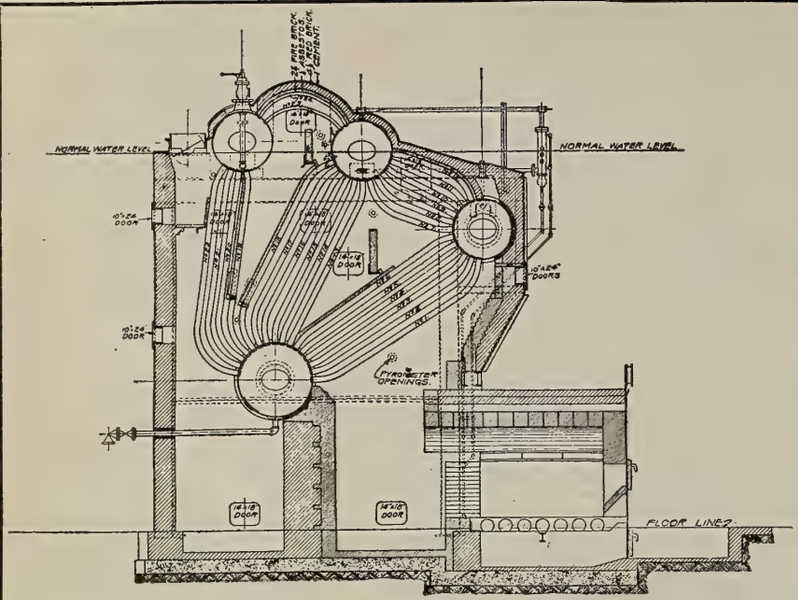
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Imperial Bayonne Engine Oil
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Write us at 56 Church Street, Toronto, or at any of our branches for appointment or lubrication information.

IMPERIAL OIL LIMITED

Power · Heat · Light · Lubrication

BRANCHES IN ALL CITIES



CONNELLY WATER TUBE BOILERS (Patented U.S. & Canada)

are of the 4 drum type, have 100% tube area in the path of circulation, and deliver steam superheated to from 5 to 10 degrees Fahrenheit.

Simple in design, no flat surfaces, no stay bolts, no crown bars, no braces, no handholes, free from joints.

All parts easily accessible for cleaning, both internally and externally.

Can be built in units from 200 H.P. up to 4,000 H.P. and for working pressures up to 300 lbs.

100,000 H.P. in successful operation.

MADE IN CANADA BY E. LEONARD & SONS, LTD.

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Thos. A. Pippy, Waldegrave St., St. John's, Nfld.

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ESTABLISHED 1834

London **LEONARD** Canada

Nova Scotia Steel & Coal Co. LIMITED

PLATES

1/8 to 5/8" thick up to 48" wide, weighing up to 1060 lbs. each

Fluid Compressed Steel Forgings

We manufacture Merchant Bars, Rounds, Flats, Squares, Ovals, Half Ovals, Tires, Sleigh Shoes, Plain or Twisted Concrete Bars, Agricultural Sections, Cold Drawn Shafting, Machinery Steel, Angle Bar Fish Plates, Track Spikes and Bolts.

General Sales Office:
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COPPER LEAD ZINC

Tadanac Brand

PRODUCED IN CANADA

BY

The Consolidated Mining and Smelting Co., of Canada Limited

TRAIL, British Columbia

COPPER—Electrolytic Ingot, Bar, Slab and Cake
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ZINC (Spelter)—High-Grade Electrolytic Zinc, Brass Special and Prime Western

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Canadian Carbide

Made in Canada

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Second to None in

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Works:
St. Catharines, Ont.
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PILLAR BRAND PLASTER

For a Much Better Job in a Lot Less Time

IONA

White Wall Finish is uniform in color, quality and setting speed. It can be depended upon to set "rock hard" without cracking or scaling.

It is the product of pure Raw Materials scientifically prepared under expert supervision.

Efficient Service.
Prompt Deliveries.

"The First in Finish"

Send for our Prices

THE IONA GYPSUM CO.
Limited

IONA - - - NOVA SCOTIA

Last Call to Intending Exhibitors

Canadian manufacturers who intend participating in the Canadian Industries Exhibition, to be held in London, England, from June 3 to 17, this year, and who have not already booked space, have only one recourse left to them, namely: to telegraph the amount of their reservation to O. C. Pease, 41 Victoria Street, Toronto.

The allotment period is well nigh over and

THIS IS POSITIVELY THE LAST CALL.

The Exhibition management has done everything possible to make the forthcoming demonstration a stupendous success. London and English Provincial papers will carry, in the near future, the first advertised announcements regarding this project which is to bind Canada's trade interests closer than ever to those of Britain's. Posters, attractively designed and printed, will shortly be appearing throughout the Tube and Railway stations in England. Added to this publicity the English Exhibition management is sending out invitations on a wide scale to all and sundry British buyers whose interest in "Canada Products" should warrant their attendance.

If your Company still has the question of entry in abeyance, subject to the approval of directors, a special meeting should unquestionably be called in order that the matter may be dealt with at once. A final understanding with representatives overseas who are handling your products may only now be consummated by immediate cable.

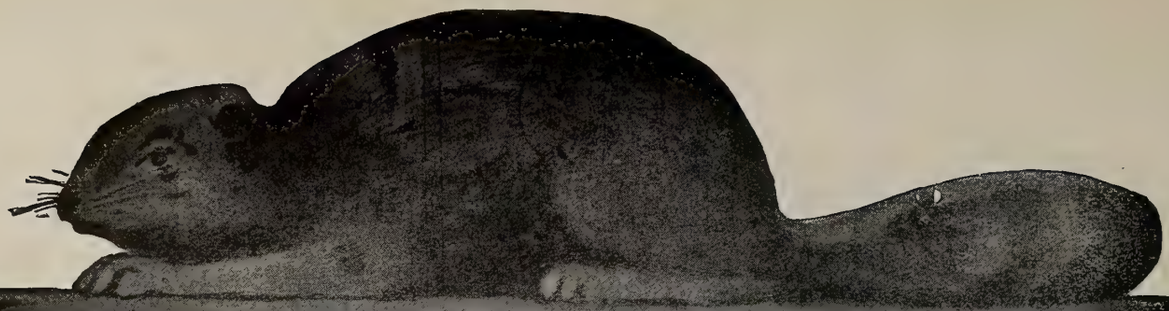
ACTION, GENTLEMEN, PLEASE

O. C. Pease, 41 Victoria Street, Toronto

Representing

CANADIAN INDUSTRIES EXHIBITION
Royal Agricultural Hall, London, England

JUNE 3rd TO 17th, 1920

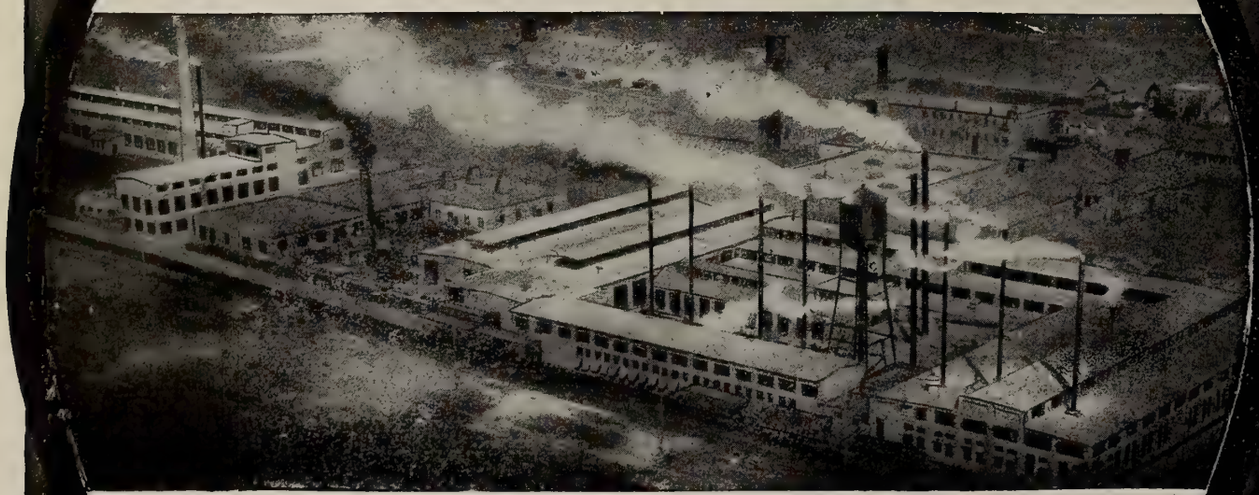


BROWN'S

Beaver Brand Metals

Brass, Copper, Nickel Silver

Sheets, Rods



Support Home Industries

We are the Pioneer Manufacturers in Canada of Brass and Copper Products

Brown's Copper & Brass Rolling Mills, Limited

New Toronto, Ont., Can.

COPPER & BRASS
BROWN'S
QUALITY
ROLLING MILLS



Plant of the John Inglis Co., Limited

ENGINES BOILERS AND TANKS

of All Kinds for Any Service

Send us your enquiries

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Engineers and Boilermakers

14 STRACHAN AVENUE - TORONTO, CANADA

Representatives in Eastern Canada—JAS. W. PYKE & CO., Limited, 232 St. James Street, Montreal

Ottawa Representative—J. W. ANDERSON, 7 Bank Street Chambers

GOODYEAR
MADE IN CANADA

EXTRA POWER BELTING

Pulling the Peak Load

Nearly every industry has some belt-drives with variable loads.

Nearly every industry has had belt trouble when the peak came on these drives.

One of the best things Goodyear Extra Power Belting does is to take care of peak loads without trouble.

How it has solved one peak load problem is told in a letter to us from the Chisholm Milling Company (reprinted here).

The very qualities which give Goodyear Extra Power its great advantage where loads vary, make it a better belt for all-round use.

The *pulley-gripping friction surface* pulls over the stiff places and prevents power waste through slippage.

The *great strength of the fabric plies* which are welded into one by much fine rubber, gives very long life.

Practically *all the stretch is taken out* of Goodyear Extra Power before you buy it—saving costly shut-downs to tighten belts.

The fine rubber, *which seals the seam*, prevents ply separation.

Over 1000 Canadian industrials have found Extra Power Belting an economical proposition—in price, in length of service, in efficiency of service. Some of them have solved problems exactly similar to yours. Let a Goodyear-trained belting man tell you about it. No obligation. Just phone, wire or write the nearest branch.

The Goodyear Tire & Rubber Co. of Canada, Limited

Branches—Halifax, St. John, Quebec, Montreal, Ottawa, Toronto, Hamilton, London, Winnipeg, Regina, Saskatoon, Calgary, Edmonton, Vancouver, Victoria. Service stocks in smaller cities.



W. H. CHISHOLM, PRESIDENT & TREAS. — W. A. CHISHOLM, VICE PRESIDENT — F. W. ARNOLD, SEC. AND MANAGER



The Chisholm Milling Co. Limited

MILLERS AND DEALERS IN
CEREALS, GRAIN AND FEED

JARVIS STREET & ESPLANADE
TORONTO

The Goodyear Tire & Rubber Co. of Canada, Ltd., Toronto, Ont. — Nov. 15th, 1919

Gentlemen:—

About five years ago we bought our first Goodyear Extra Power Belting. To-day half our belts are Goodyear Extra Power, and as fast as old belts wear out we are replacing them with Extra Power. The performance of the first belt has brought about this change.

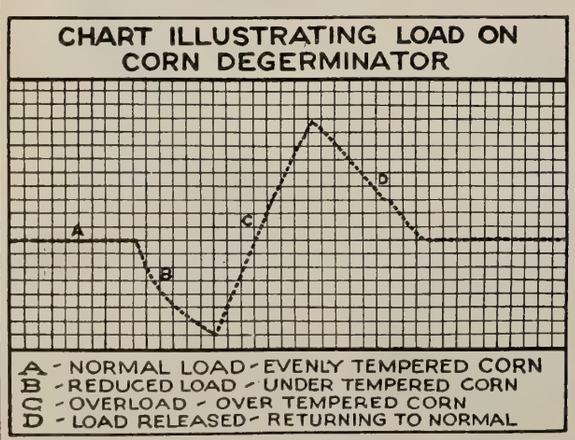
We were having trouble with our corn degerminator. Every now and then the machine would stick. Although we were using the highest priced belts we could buy, they continually burnt through when the sudden load of a sticking degerminator came. One expensive belt went in two days. The next one lasted but little longer. Then we tried a Goodyear Extra Power Belt. IT gave us 18 months' service. When the degerminator stuck, Extra Power just seemed to buckle down to the job and pulled right through the peak load. It wasn't long before we decided to use Extra Power Belts on all our equipment.

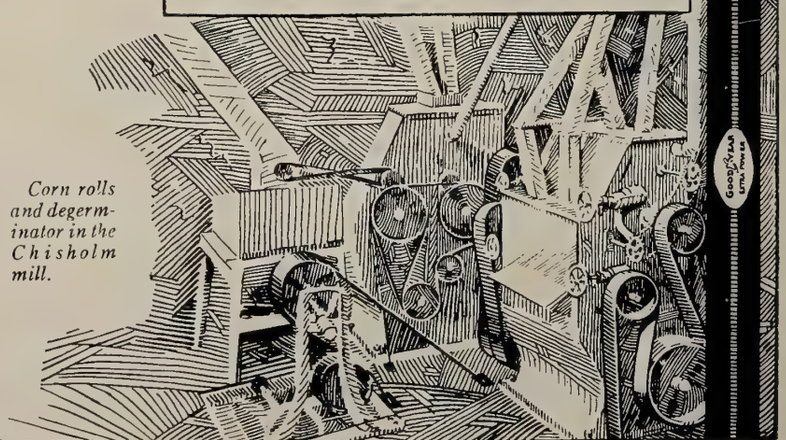
Now we have installed them on grinding mills, corn mills, shaft drives, etc.

We figure that we save a great deal in price, save power, and get surer service.

Yours very truly,
The Chisholm Milling Co., Limited

W. F. Legg





Corn rolls and degerminator in the Chisholm mill.





Goodyear Builds Better Hose

There was a time when men thought that rubber tires had reached their limit of quality. Then Goodyear entered the field, and, by leaving the beaten path, built the largest tire business in the world.

When Goodyear scientists and engineers turned their attention to Industrial Hose they were not satisfi d with many of the existing standards. They started from the ground up. They built for Industry's needs. Was the rubber lining unsatisfactory—Goodyear men worked till they had discovered a better one. Did a cover wear out too quickly in hard service—the knowledge gained in building automobile treads was applied to hose covers. New specifications were worked out. New formulae were developed.

The Goodyear Industrial Hose offered you today is the result of a definite policy. It is the *solution* to your hose problems—not a makeshift.

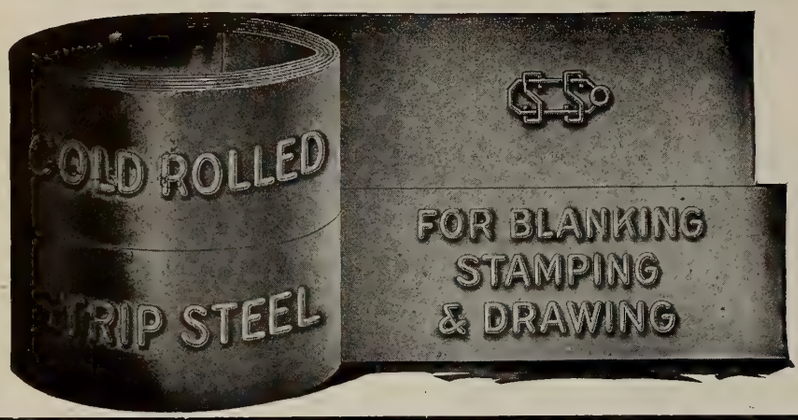
In mines, mills, foundries, shipyards, railways, and a hundred other industries, all over Canada, it is setting new standards.

There is a Goodyear Industrial Hose for every particular use—yours among them. Let a man, trained by Goodyear in hose problems, call and explain them to you. No obligation. Phone, wire or write the nearest branch.

The Goodyear Tire & Rubber Co. of Canada, Limited

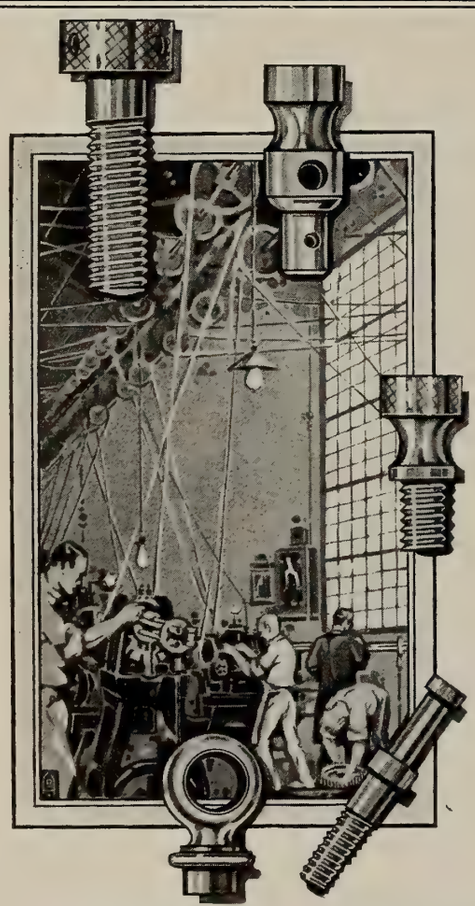
Halifax, St. John, Quebec, Montreal, Ottawa, Toronto, Hamilton, London, Winnipeg, Regina, Saskatoon, Calgary, Edmonton, Vancouver

GOODYEAR
MADE IN CANADA
INDUSTRIAL HOSE



FINISHED BRIGHT
FOR
ELECTRO PLATING
DEEP DRAWING QUALITY
ACCURATE GAUGE AND WIDTH
WE SOLICIT YOUR ENQUIRIES

MANUFACTURED BY
STANLEY STEEL CO., LTD.
Hamilton, Canada



Stamped Metal Parts and Automatic Screw Machine Products

Turning out work that is perfect and accurate in every detail is not a problem for us---it is a commonplace.

In our modern plant, working to a thousandth part of an inch is a daily occurrence to our Factory Experts, and they are alive to the importance of such precision.

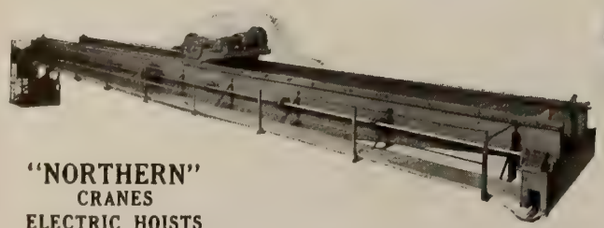
We agree to give satisfaction with each order.

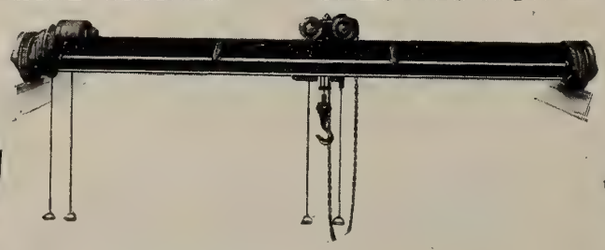
Let us handle your next proposition.

Caron Brothers *233 Bleury Street Montreal, Quebec*

CANADIAN-MADE CRANES

ELECTRIC TRAVELLING CRANES HAND CRANES ELECTRIC HOISTS

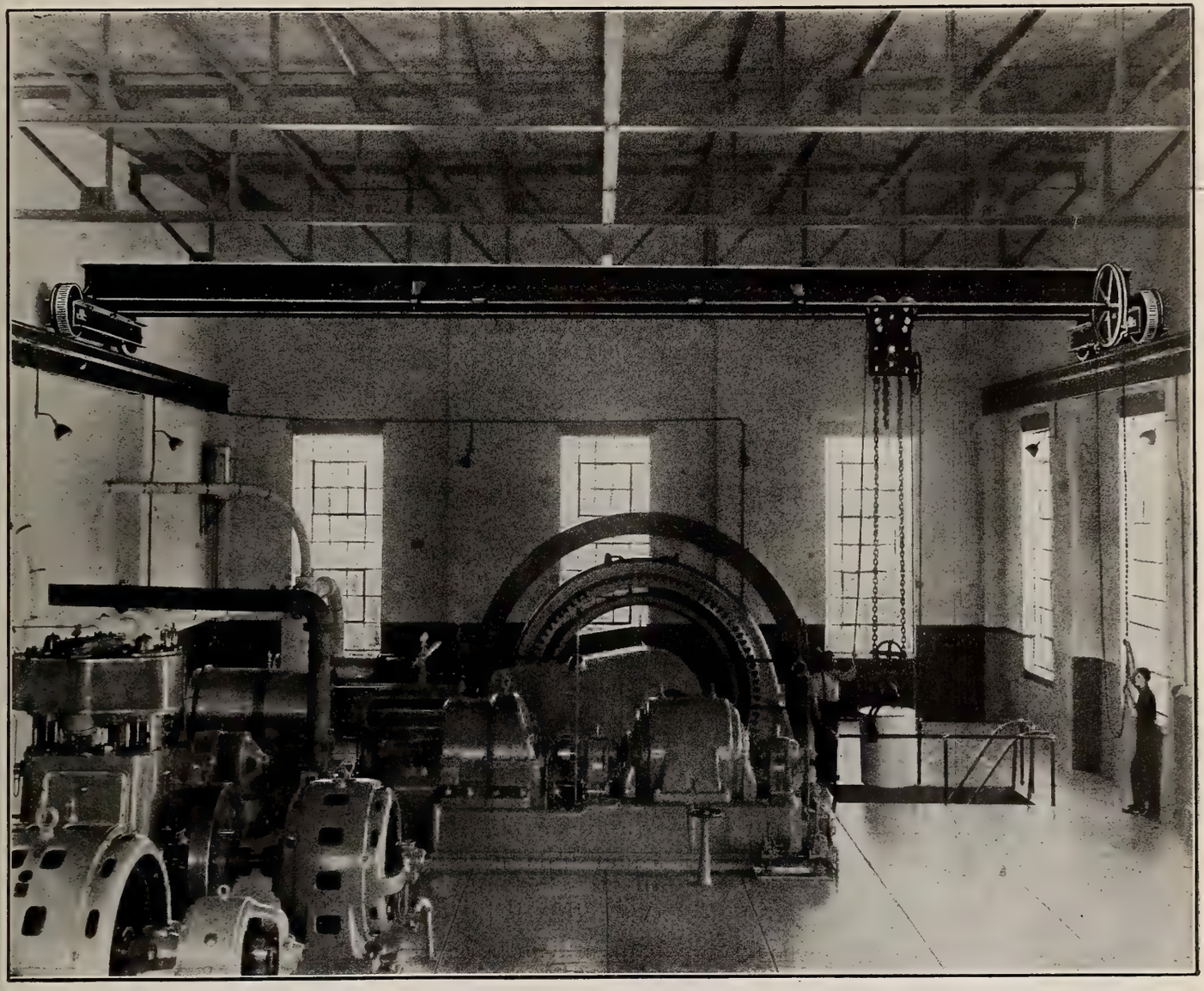






"NORTHERN"
CRANES
ELECTRIC HOISTS
AIR HOISTS
FOUNDRY EQUIPMENT

NORTHERN CRANE WORKS LIMITED
WALKERVILLE, ONTARIO



ARE you planning or do you expect to plan better ways for handling your products?

We are in a position to make constructive recommendations as to the best methods of overcoming your particular difficulties.

IT WILL PAY YOU TO GET IN TOUCH WITH US

THE HERBERT MORRIS CRANE & HOIST COMPANY, Limited

Head Office and Works:

NIAGARA FALLS, ONT.

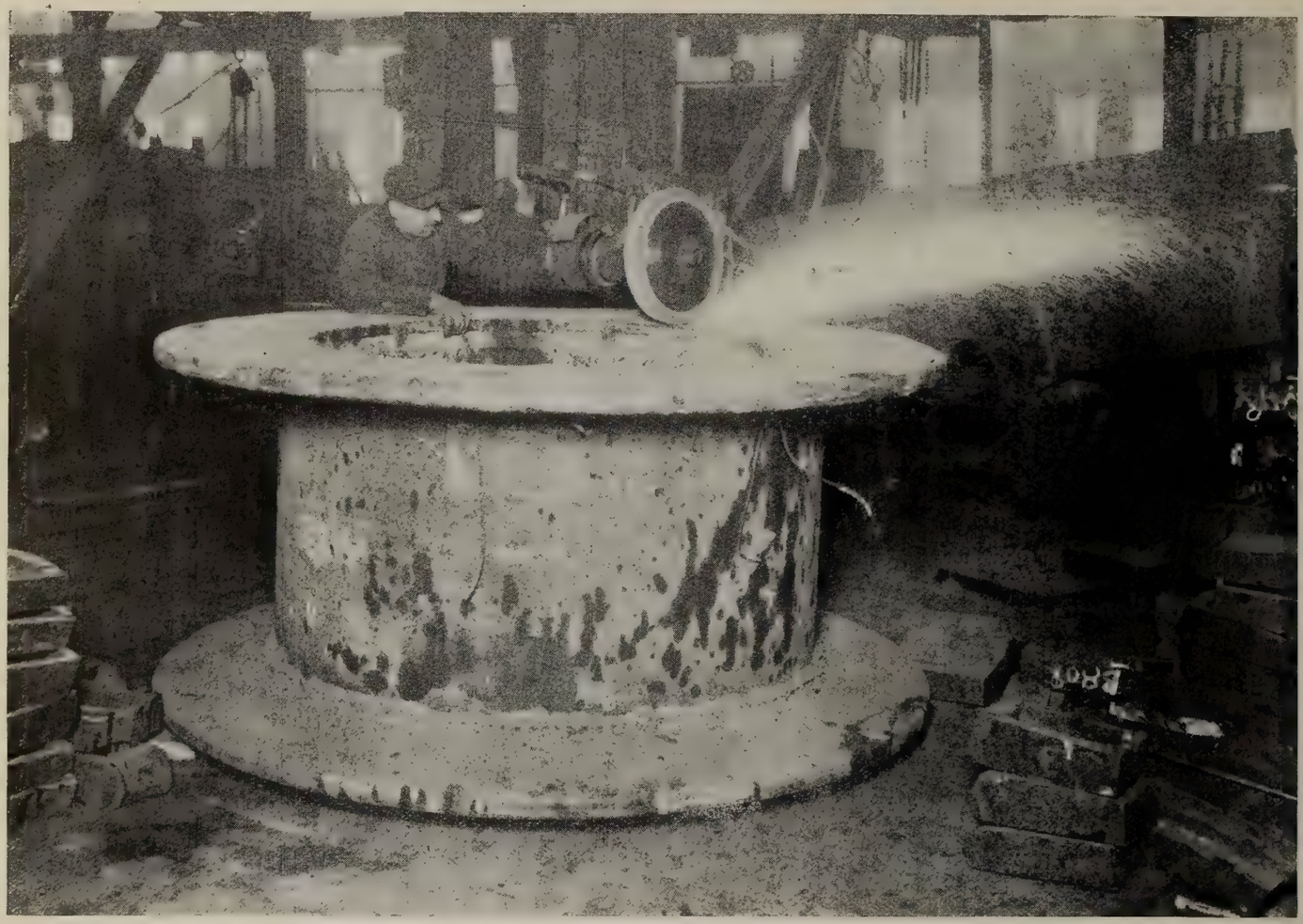
Specialists in the Design, Manufacture and Application of Lifting Machinery and Material Handling Equipment

HERBERT MORRIS CRANES

ELECTRIC CRANES
MONORAIL HOISTS

AND CHAIN BLOCKS

ELECTRIC TRUCKS
ELEVATING TRUCKS



Alundum Wheel removing excess material from a dredge tumbler at the American Manganese Steel Company, Chicago, Ill.

ALUNDUM SNAGGING WHEELS

Manganese steel combines extreme hardness, toughness and ductility. Steel tools cannot remove excess material from this alloy steel commercially. *Alundum grinding wheels can.*

Made of No. 66 Alundum abrasive with the special temper, Norton grinding wheels remove the jagged edges and rough fins from these castings

Rapidly
With a minimum of heat
At the lowest cost

The illustration shows a 20 x 2 x 2" wheel, with a ¾" taper, grain 6614 grade U, being used for snagging a dredge tumbler.

NORTON COMPANY • Worcester, Mass.

ELECTRIC FURNACE PLANTS
NIAGARA FALLS, N.Y. CHIPPAWA, ONTARIO

CANADIAN AGENTS:
CANADIAN FAIRBANKS-MORSE CO., Limited
Montreal, Toronto, Ottawa, St. John, N.B., Winnipeg, Calgary, Saskatoon, Vancouver, Victoria
F. H. ANDREWS & SON, Quebec, Que.

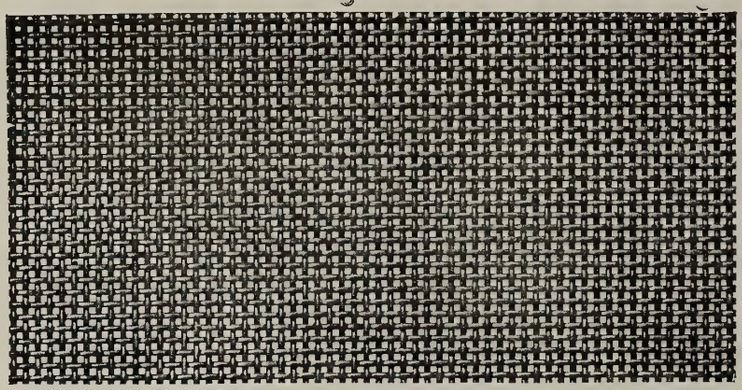
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A PILLAR OF
CANADIAN INDUSTRY
Employing 3,200 Persons
A Million Square Ft. of Floor Space
"Makers of The Nation's Telephones". 97% of Canada's Telephone Equipment is the product of our Plant.
Unrivalled Facilities for the Manufacture of every kind of Electrical Wire and Cable.
Makers of 99% of the City and Factory Fire Alarm Systems in use throughout the Dominion.
Eleven strategically placed Branches render intelligent service in the distributing of Electrical and Automotive Supplies. Power and Light Plants, motors, wiring devices, storage batteries etc..
Our name connected with anything Electrical is your sure guarantee of highest quality.
Northern Electric Company
LIMITED
MONTREAL QUEBEC HALIFAX OTTAWA
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REGINA CALGARY EDMONTON VANCOUVER

THE B. GREENING WIRE CO. LIMITED

MANUFACTURERS OF

WIRE CLOTH WIRE ROPE
PERFORATED METALS



Hamilton, Ont. **Montreal, Que.**

SPECIAL MACHINERY

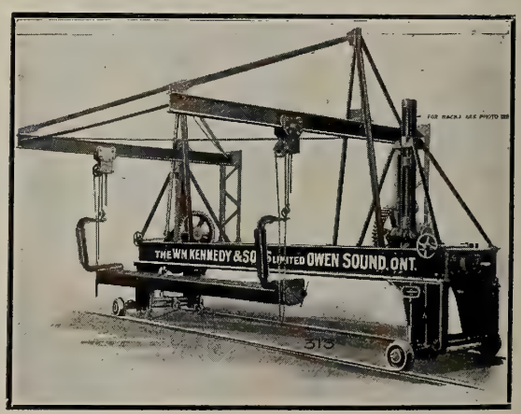
BUILT TO ENGINEERS' DRAWINGS and SPECIFICATIONS



PROPELLER WHEELS

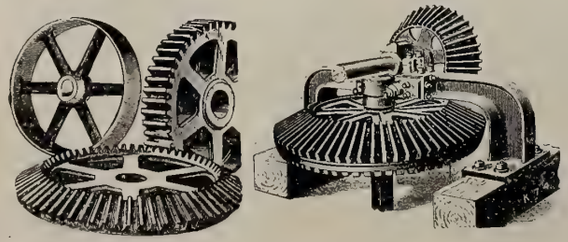


WATER WHEELS



STOPLOG WINCHES

Gears



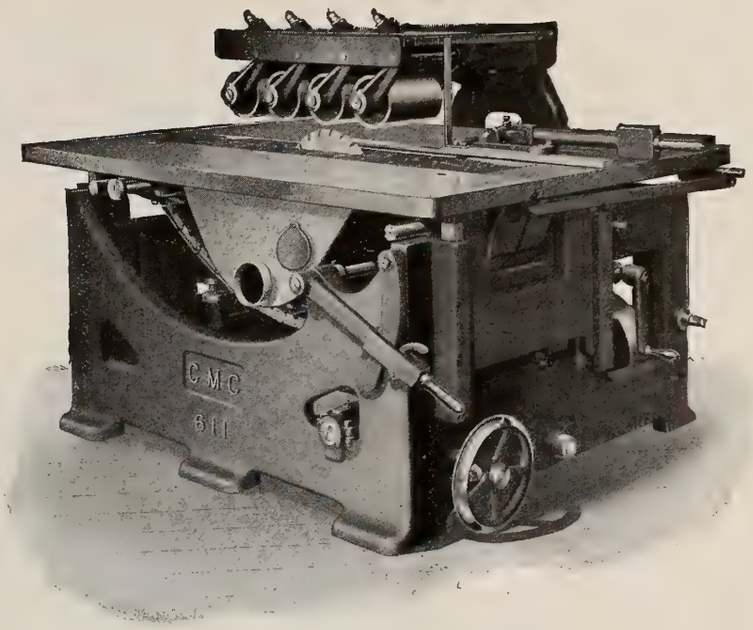
Steel Castings

THE WM. KENNEDY & SONS, Limited - Owen Sound, Canada

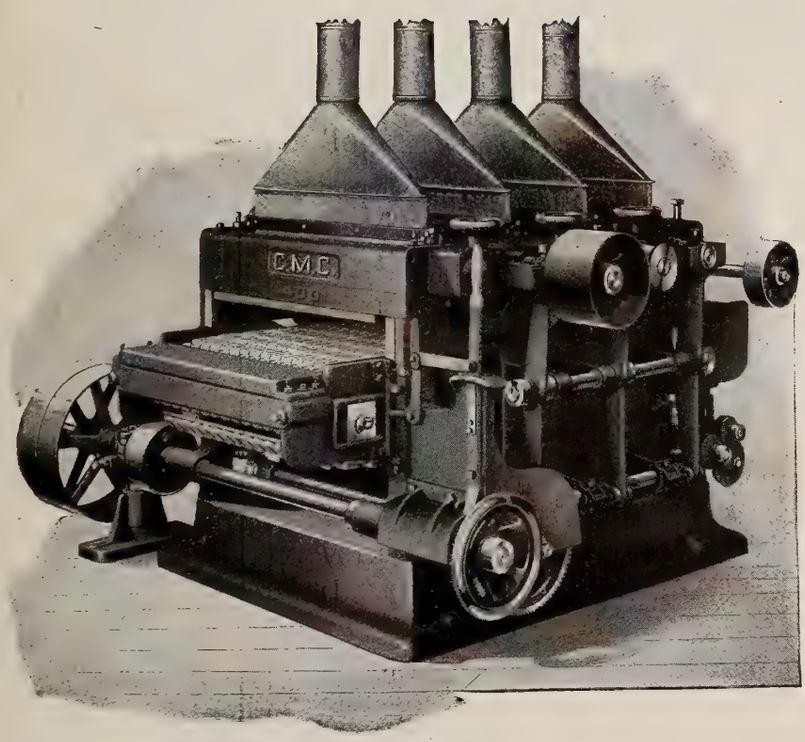
C.M.C.

No. 611 RIPPING AND JOINTING SAW

Adapted for accurate and heavy ripping at fast speeds



THESE TWO MACHINES MAKE A WONDERFUL COMBINATION IN A WOODWORKING PLANT



No. 400 ENDLESS BED SANDER

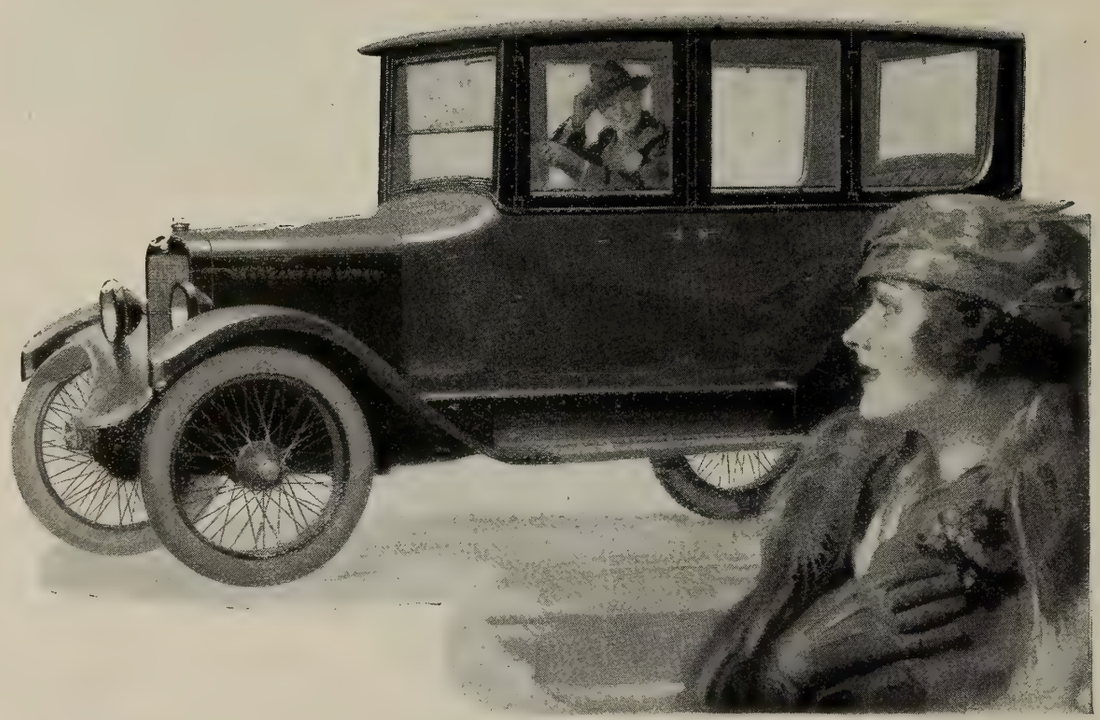
Produces the finest work in great quantities

CANADA MACHINERY CORPORATION, LIMITED, GALT, ONTARIO

Toronto Office and Warerooms: Brock Avenue Subway

Overland

TRADE MARK REG.



Soft Riding on Hard Roads

FROZEN, rough roads emphasize the wonderful cushioning action of three-point suspension *Triplex* Springs, in the new Overland 4, Four-Door Sedan.

This Sedan protects passengers from bad roads as well as from bad weather. *Triplex* Springs give it the steadiness of a heavy car of long wheelbase with the economy in fuel, tires and upkeep of a light car.

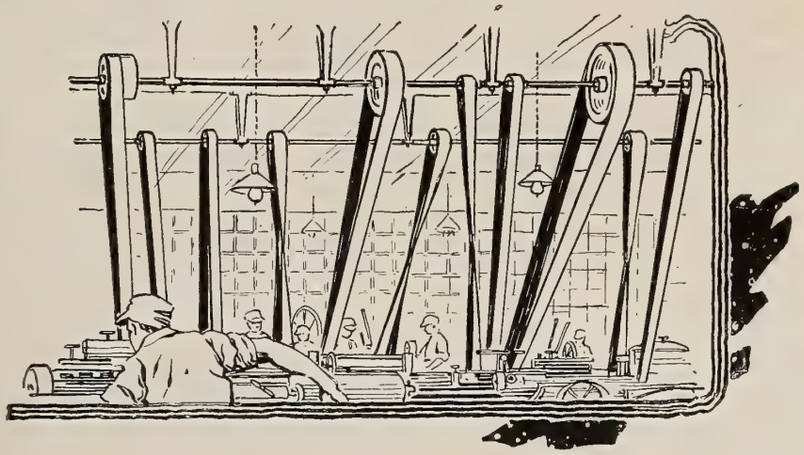
Overland Dealers report an ever increasing enthusiasm among owners over the greater riding comfort, performance, equipment and appearance of this new car.

WILLYS-OVERLAND LIMITED

Sedans, Coupes, Touring Cars and Roadsters

Head Office and Factories, Toronto, Canada

Branches: Toronto, Montreal, Winnipeg and Regina



Eliminating Unnecessary Waste in Manufacturing

In most every manufacturing plant, there are a thousand little holes that soon become expensive leaks in the efficiency of manufacturing equipment, time, labor and materials.

The average manufacturer does not realize that these leaks exist, or that a part of his profits is running away and forming a stream of lost dollars.

Dominion Friction Surface Belting

for many years has helped manufacturers to eliminate a large part of the unnecessary waste in manufacturing by plugging the leaks.

For fifty years we have manufactured belting and our experts are conversant with every phase of transmission. Many of Canada's largest manufacturers find this service so profitable that they have made our engineers responsible for the efficiency of all their belting equipment.

We are ready to show you, without charge, how unnecessary waste in *your* factory may be eliminated.

Address the nearest Service Branch.

CANADIAN CONSOLIDATED RUBBER CO. LIMITED
DOMINION RUBBER SYSTEM
AND ASSOCIATED COMPANIES

Makers of
Dominion Hose, Packing and Industrial Rubber Goods and Dominion Tires, the GOOD Tires for every purpose

Service Branches

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Ottawa	Winnipeg	Vancouver
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60



This merchant finds it easy to make out his income tax report

HE has a checking account at the bank and he uses an up-to-date National Cash Register.

From his bank check book and his bills he gets the cost of running his store, cost of merchandise bought, and a record of payments made.

From his National Cash Register he gets a record of (1) cash sales, (2) charge sales, (3) received on account, (4) petty cash paid out, and (5) clerks' sales.

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Without an up-to-date National Cash Register, these necessary figures would be hard to get, hard to keep, impossible to verify, and expensive to record.

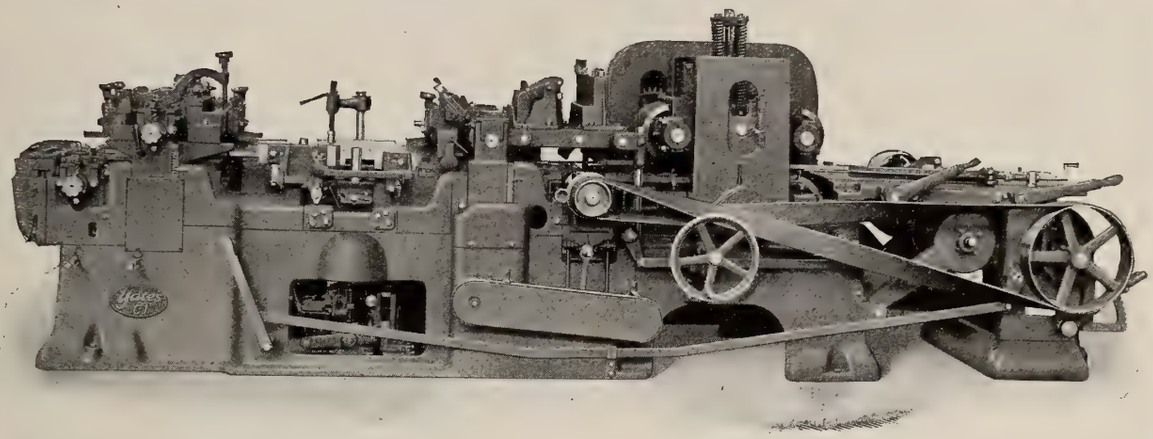
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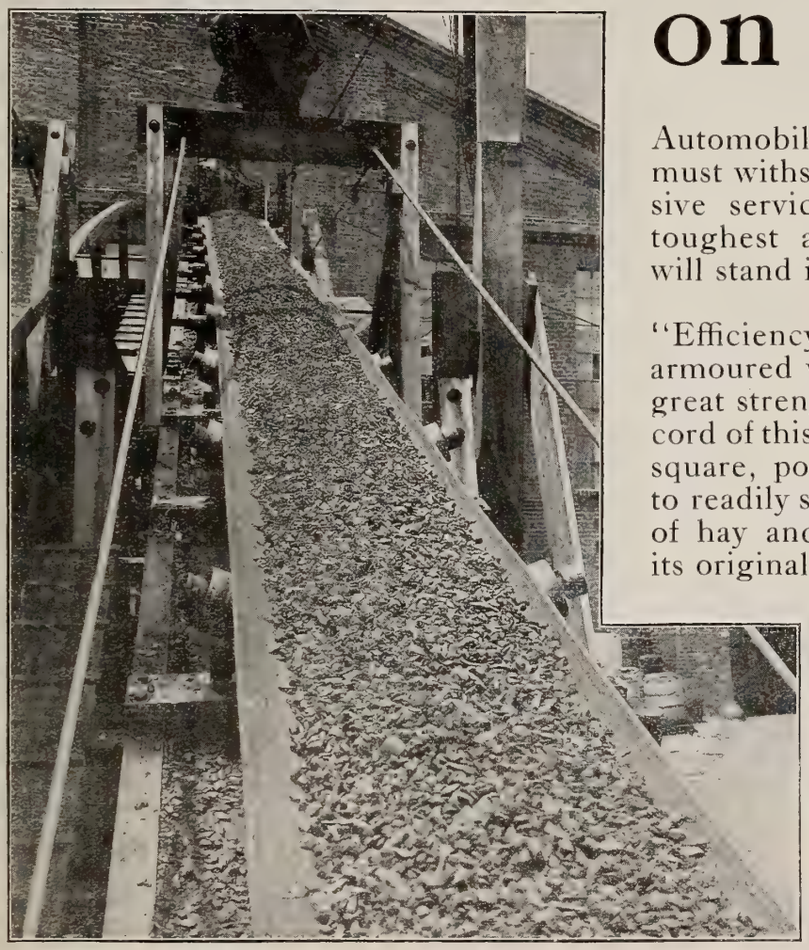
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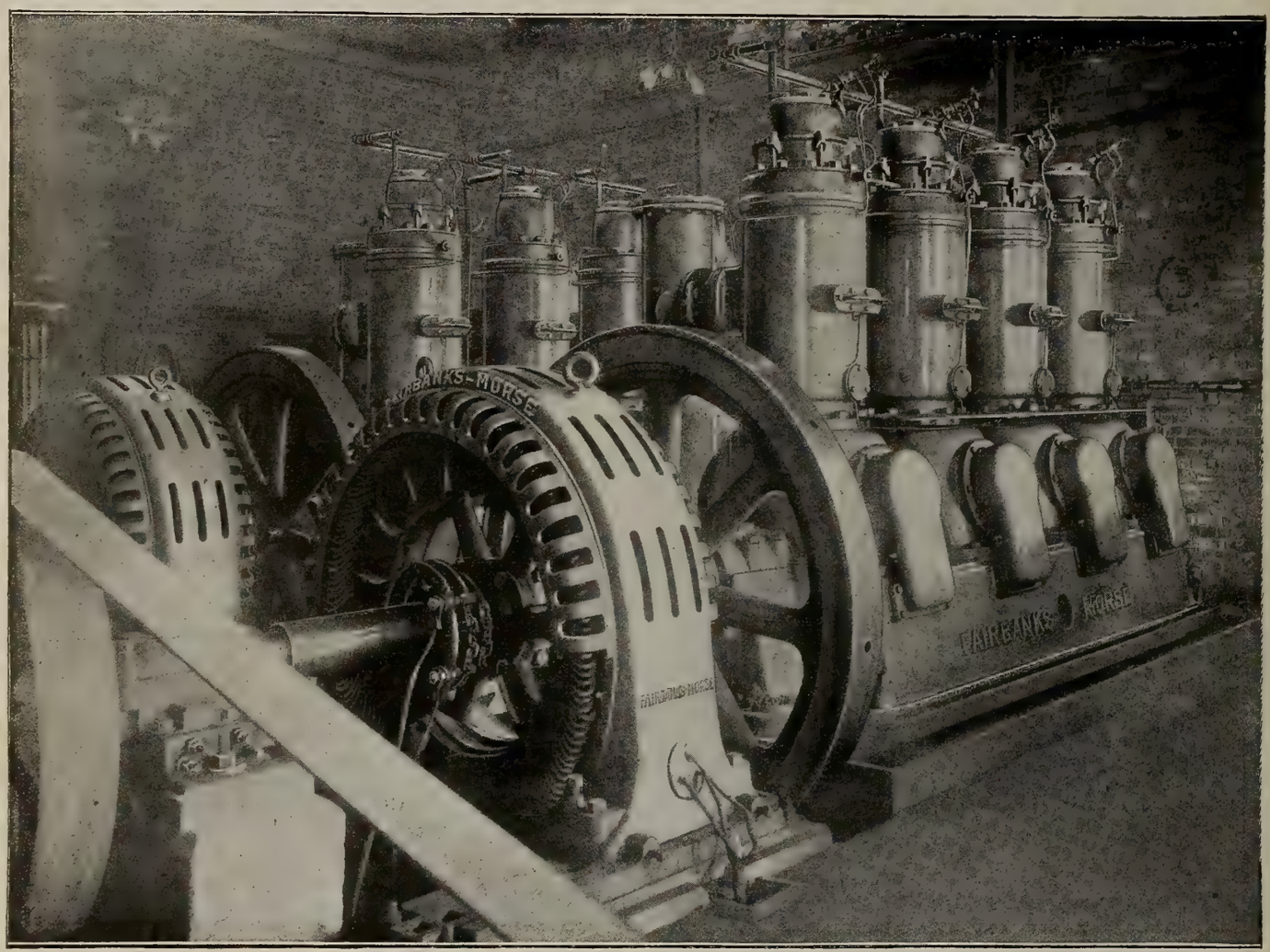
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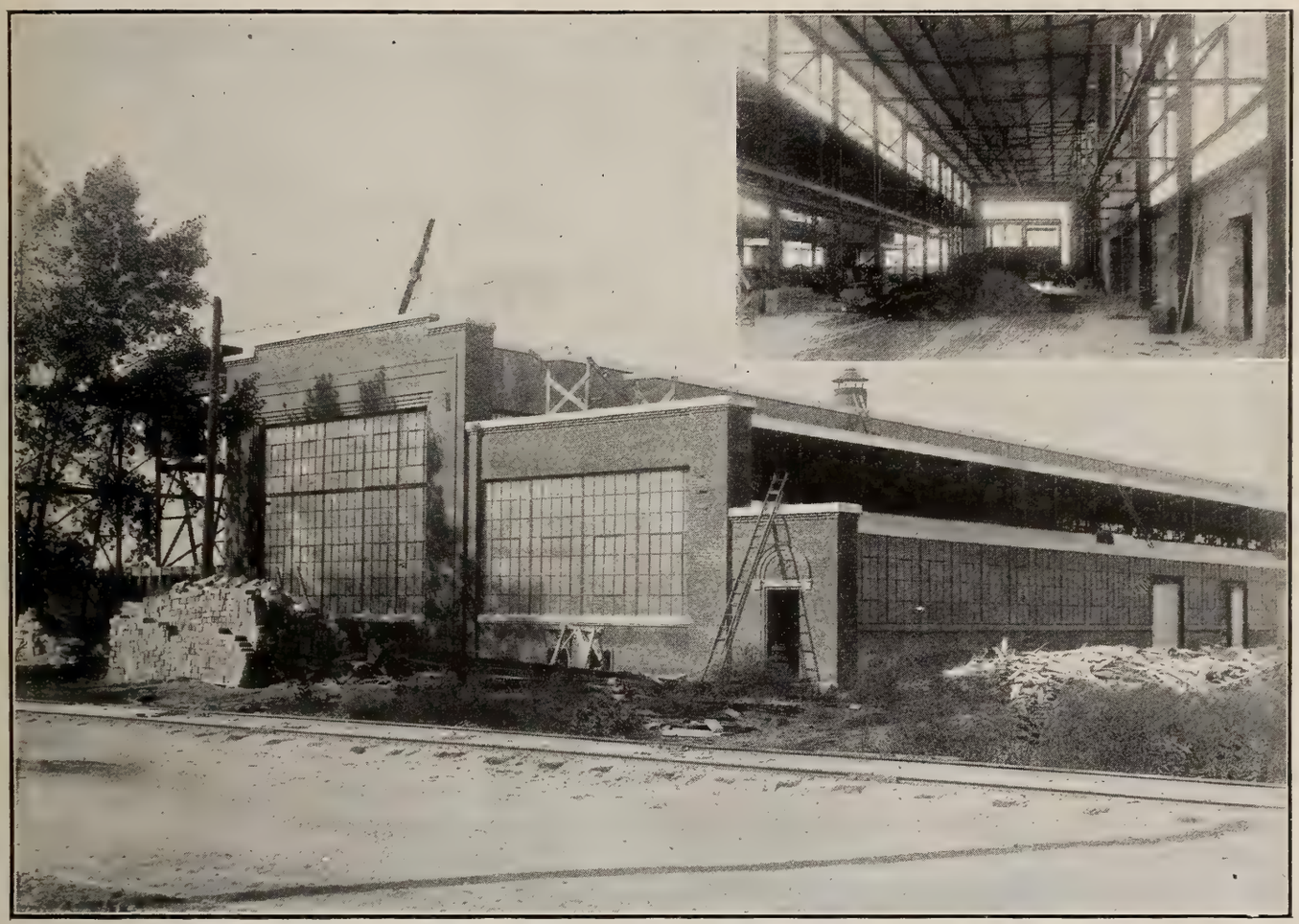
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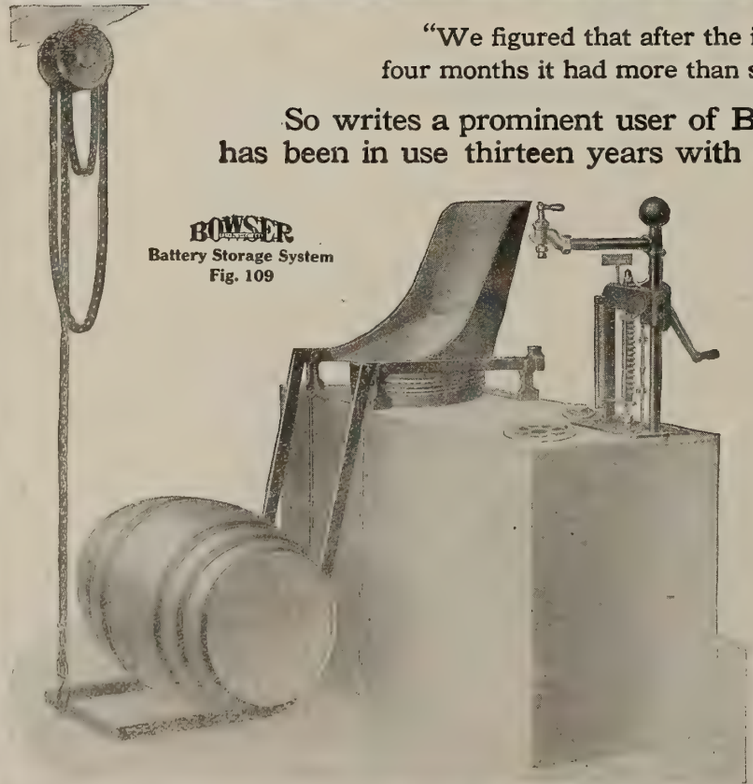
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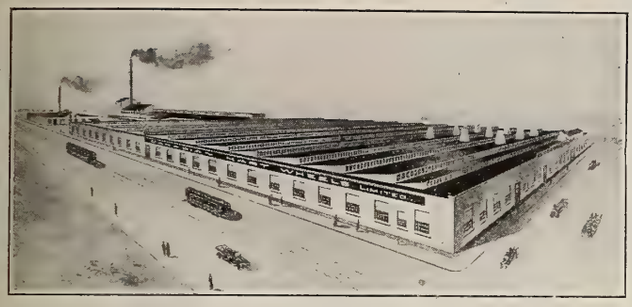
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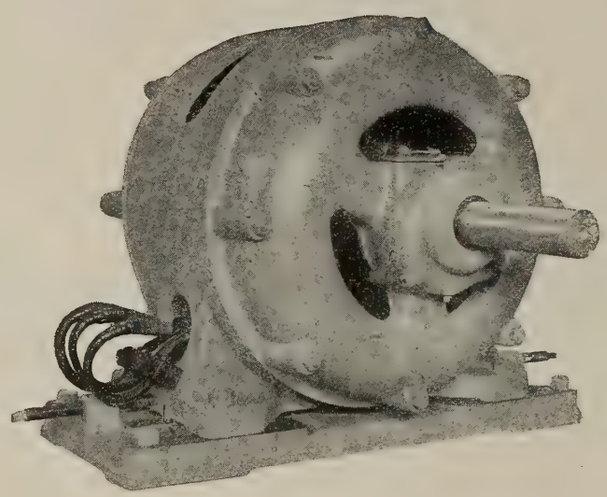
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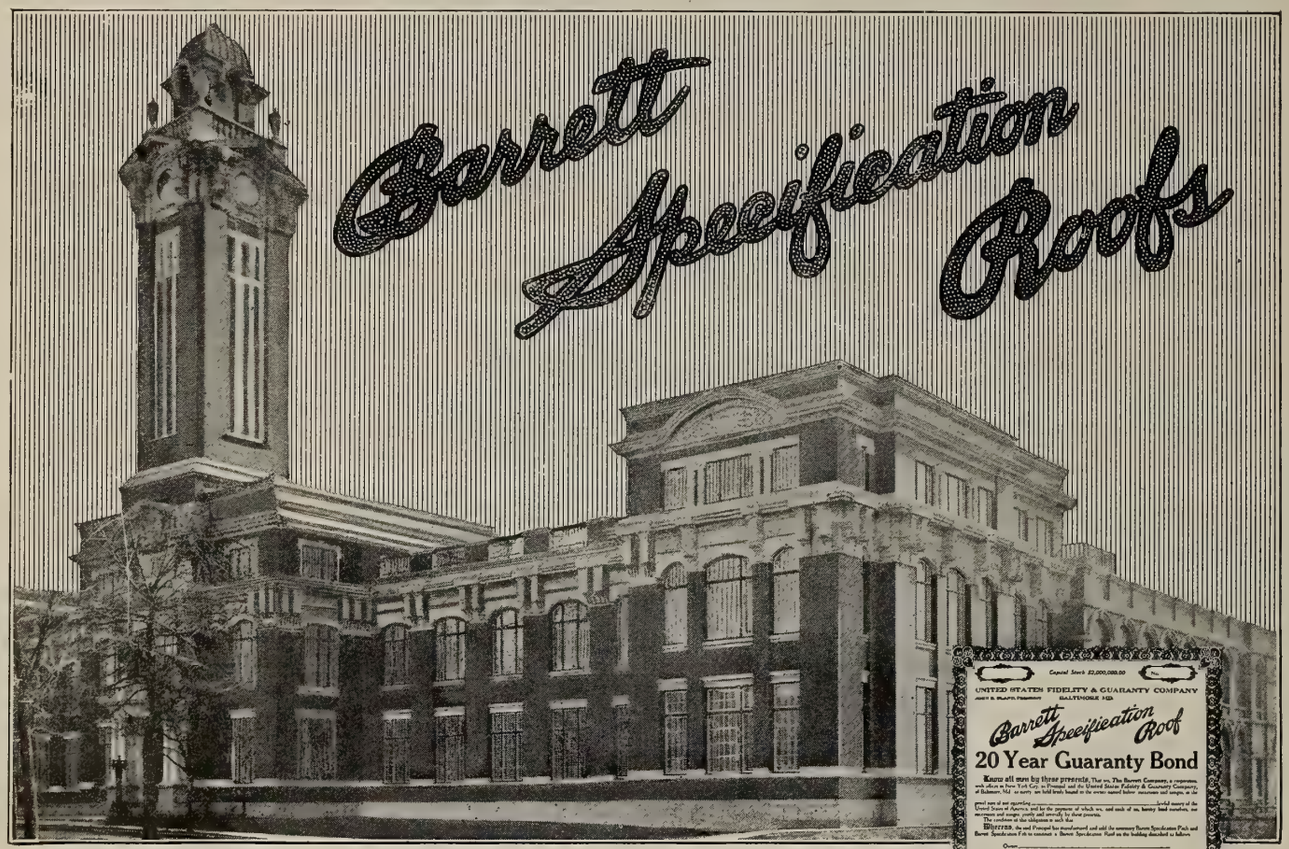
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Industrial Canada

ISSUED BY

The Canadian Manufacturers Association
INCORPORATED

Vol. XX. TORONTO, FEBRUARY, 1920 No. 10

Editorial Comment

The Annual Meeting

As announced some time ago, the 1920 annual meeting of the Association will be held in Vancouver on June 8 and 9. While the date is still four months distant, conditions render it desirable that members in Eastern Canada should make their arrangements to be present well in advance of the actual time of meeting. It will take several days to make the trip, and members will of necessity be absent from their offices for a much longer period than would be the case were the meeting to be held in the east. This makes it all the more important that early plans should be laid for attendance.

The value of a visit to Western Canada and the Pacific Coast at the present time need scarcely be emphasized. Many eastern manufacturers have not had an opportunity to visit the west since before the war, and in the interval important changes have taken place. Moreover it is highly desirable that through personal contact, the best of relations should be established between east and west. The more members who can take the trip to Vancouver and Victoria in June the better.

Resignation of Mr. Ellis

WIDESPREAD regret will be felt among the membership of the Association at the announcement that Mr. J. F. Ellis has found it necessary for reasons of health to resign from the office of treasurer. Only those who have been in close touch with Mr. Ellis are aware of the wide and varied extent of his activities, and it is by no means surprising that, with advancing years, he should now find it necessary to reduce his responsibilities.

The Association has had no more zealous and loyal supporter than John F. Ellis. It is now many years since he served as president, but both before and after occupying that high office he has given steadily of his time and service to the welfare of the organization. He leaves the treasurership with the esteem and admiration of those with whom he worked, while the wish is general that he may long be spared to continue his connection with the Association in some less arduous position.

Precept and Practice

A MEMBER of the Association has written to us in connection with the Made-in-Canada Campaign, enclosing six envelopes received by him from six different Canadian manufacturers. All these envelopes were made in the United States. Our correspondent says:—

"The thought that arises in my mind is—Do Canadian manufacturers practice what they preach? Of course the heads of some of the firms in question might say that these matters are too small for them to bother about, but I do not think it should be. If Canadian firms would watch these small matters it would mean the employment of several thousand more of our people making just such things as envelopes."

The Fuel Situation.

APPOINTMENT by the Association of a special committee to investigate and report on the fuel situation in Canada, with a view to developing domestic sources of supply, is a step that must receive the cordial endorsation of all who are interested in the national welfare. It is to be hoped that no time will be lost in getting down to action, and that the results of the inquiry will be such as to lead to a satisfactory solution of the whole problem.

In a sense it has been paradoxical that the Dominion, with its immense coal areas, should have become so dependent on the coal mines of Pennsylvania and Ohio for its supply of fuel. Yet after all the element of transportation has hitherto been the determining factor, and it has been more economical to deliver coal from the United States to Ontario and Quebec than to haul it from Nova Scotia or Alberta.

The need for action at the present time rests not so much on any difficulties that may arise in connection with transportation as in the ultimate exhaustion of the source of supply. Canada has already experienced a foretaste of what may occur, when the American miners went on strike last fall, and this condition will become accentuated as

reserves dwindle. Eventually, with its own needs steadily on the increase, it may become necessary for the United States, in self-defence, to take steps to conserve its supply by restricting exports. And this action could reasonably be taken against Canada because of the Dominion's own abundant fuel resources.

From whatever angle the question is viewed, it is most desirable that this country should become much more self-contained as regards its fuel supply than it has been in the past, and any effective solution of the difficulties which have hitherto prevented a wider use of Canadian coal will constitute national service of the highest order.

Water-Powers of British Columbia

THAT 3,000,000 horse-power may be furnished by the waters of British Columbia, is stated in the recently published report of the Commission of Conservation on "Water-powers of British Columbia." This estimate is in round figures and is made on the basis of 24-hour horse-power.

Water-power is becoming increasingly valuable to any province which hopes for an industrial future. This fact is emphasized by the recent coal crisis. The great volume of water-power available gives some indication of the industrial growth which should be associated with the future of British Columbia. The Commission states that its total estimate includes "about 250,000 horse-power for plants already in operation." It would appear, therefore, that British Columbia is scarcely using one-twelfth of the water-power available within the boundaries of the Province. The estimate of the Commission would seem to have been reached after very conservative allowances had been made to prevent uneconomic development of water-power. The report points out that water should not be allotted for power development without due recognition of the just demands of other interests having claims upon inland waters. Care should be taken to conserve vegetation. Nothing should be done to deplete the ground water storage. No hydro-electric development should tend to decrease the supply of water available for irrigation. Neither should hydro-electric development be undertaken at the expense of the requirements of navigation. The salmon industry must not be injured. The pollution of inland waters through the deposit of mining, factory and industrial waste must not be permitted. The report recommends that no power development should interfere unduly with the tourist traffic. After eliminating all possibility of developing latent power where it might interfere in any of the ways specified above, the Commission's estimate that 3,000,000 horse-power is available for hydro-electric developement is probably most conservative.

The report dwells upon the importance of the development of hydro-electric power to the mining industry of British Columbia, and prophesies a bright future for it through the application of hydro-electric energy. With abundance of raw materials and hydro-electric power, there should be splendid prospects for a great development in manufacturing in British Columbia.

The Dislocation of Exchange.

MORE emphatically than ever the course of foreign exchange is demonstrating the paramount importance of developing the home market. While the situation is complicated by the play of international forces, and while the movement of securities from one market to another introduces a qualifying influence, basically it is the interchange of commodities in unequal proportions that is causing the dislocation. As between Canada and the United States, the Dominion has been buying far in excess of its sales, and there has been no means of adjusting the balance through a third party as in the days before the war.

Abnormal exchange rates are bound to force the adoption of remedial measures, though it may take some time to make them effective. The connections of years are not readily severed. At the same time there is an increasing disposition to look to the home market for goods that were hitherto bought from the United States, and, failing that, a tendency to try out the British market. By degrees these influences are sure to have an effect on the course of trade.

In his address before the Hamilton branch last month, Mr. T. B. Macaulay, president of the Sun Life Assurance Co., based his appeal for closer trade relations with the British West Indies on considerations into which the question of exchange entered prominently. Canada, he argued, is a northern country, and as such must be an importer of tropical products. The United States, on the other hand, develops within its limits both the products of temperate and tropical climes, and in that respect is self-contained. If Canada persists in buying from her southern neighbor the bulk of the goods which she cannot herself produce, it stands to reason that the exchange rate must remain against her, but, if she could do her buying in the West Indies and reduce importation of tropical products from the United States, then at least one influence towards adverse exchange would be removed.

At present the soaring premium on New York funds and the break in sterling are becoming rather the effect of a psychological condition than a reasonable scientific movement, and nothing will tend to bring quotations back to a more normal basis than knowledge that the current of trade is setting strongly in the direction of improvement. Trade figures will be watched with intense interest during the next few months. And anything that can be done to show that we are importing less and exporting more will have a beneficial effect.

Fire Prevention

THE loss by fire in Canada during the year 1918, excluding forest fires, is estimated at $33,000,000.

The fisheries of Canada yield annually about $35,000,000, the gold mines about $15,000,000, the silver mines about $18,000,000, the nickel mines, $25,000,000, and the coal mines, $47,000,000.

These figures enable us to grasp the economic significance of fire waste. The loss from fire is of as much importance, economically and intrinsically, as would be the entire destruction of our fishing industry, or the closing of our gold and silver mines, and nearly as great as the disappearance of our coal industry.

Were these latter industries to cease, the public would be appalled at the magnitude of the disaster. The fire loss, on the other hand, is, or until recently has been, regarded with comparative equanimity. Why?

The reason is to be found in the fact that indemnity for the individual loss is, as a rule, provided for by insurance. The public has not always stopped to consider that no indemnity is or can be provided for the national loss. The individual is indemnified by other individuals within the nation. The nation as a whole is the loser as truly as if it were deprived of its productive industries.

It was these facts that led the Department of Insurance, with the sanction of the Minister of Finance, to call together in December 1918 representatives of various business organizations with a view to considering the best means of dealing with the problem. Many of these organizations had already seriously studied the situation and it was felt that their experience, together with that of the fire insurance companies, would be valuable as a guide to action.

The organizations represented on that Committee were The Canadian Bankers Association, The Canadian Credit Men's Trust Association, The Canadian Fire Underwriters' Association, The Canadian Manufacturers Association, The Dominion Association of Fire Chiefs, The Dominion Mortgage and Investments Association, The Trades and Labour Congress of Canada, The Non-tariff Insurance Companies, The Retail Merchants' Association of Canada, The United Farmers of Alberta, The United Farmers of Ontario, The Commission of Conservation and the Department of Insurance.

Many resolutions were adopted, of which the most important were those favouring a Dominion-wide campaign in the interests of fire prevention, the enactment of legislation imposing criminal penalties for negligence in causing fires, and the compulsory installation of automatic sprinklers in large buildings.

The first-mentioned resolution has been given effect to throughout the year by propaganda of various kinds, and more recently by co-operation with the Provincial authorities in securing the widespread observance of Fire Prevention Day.

The second resolution has been carried out by the amendment of the Criminal Code respecting the prevention of fire.

The third resolution is the one which is fraught with the greatest possibilities for immediate results in reducing fire waste. The resolution, moved by Mr. J. B. Laidlaw, of The Canadian Fire Underwriters' Association, and seconded by Mr. John Appleton, of The Dominion Mortgage and Investments Association, recognizes the efficiency of the modern automatic sprinklers, the greater security obtained by their use for owners of property and mortgagees, and the large reduction in insurance premiums resulting from their use.

In dealing with this resolution, the Department has taken the view that for the present at least compulsory measures are not necessary, but that where pecuniary advantage is joined with an opportunity for conserving the national resources, which at the present time must be regarded as one of the highest forms of patriotism, it should be necessary only to bring more prominently than heretofore to the attention of manufacturers and others the merits of this installation to attain the object of the resolution.

A survey of manufacturing plants now being made reveals a large number of plants, apparently well suited for sprinkling, which have not been so protected. In some cases the owner has probably not had his attention drawn to the advantages to be derived, in others he has doubtless been deterred by the present comparatively high cost of the equipment.

The cost of installation has undoubtedly advanced in recent years but the causes which have produced this advance have also increased the value of the buildings and stocks to be protected and consequently the amount of insurance to be carried, and as the financial advantage from sprinkling is proportional to the amount of insurance carried, the cost of the installation is relatively in many cases the same as before.

An important element of the cost of installation is the overhead expense of the sprinkler companies, each of which is called upon to make expensive surveys, plans and specifications from which no contracts are received. Frequently several companies incur this expense in respect of a single plant without result.

This suggests one means of reducing the cost of installation and one which is being tested at the present time. That is the possibility of having the installing companies co-operate through a central survey bureau in making surveys and plans, thus eliminating the duplication of work and expense which has so materially affected the cost in the past.

An arrangement of this kind was effected in the United States during the latter part of the war and was found to be advantageous. While conditions are now changed, there should be no reason why a similar arrangement should not be practicable in Canada.

A great opportunity confronts the manufacturing and mercantile interests in Canada of wiping out the stigma at present attaching to this country in the matter of waste from fire. This opportunity is presented through the automatic sprinkler.

News and Views of the Association

There will be found each month in this department a record of the various activities of the Canadian Manufacturers Association during the preceding month. The information is supplied to INDUSTRIAL CANADA officially, and all members of the Association are urged to acquire the habit of reading and checking over the contents of the department carefully in order to keep themselves posted on the work of the Association

Resignation of Treasurer

Owing to ill-health, Mr. John Ellis, Treasurer of the Association, has resigned. At the January meeting of the Executive Council, the following resolution was passed:

"WHERAS Mr. John F. Ellis, Treasurer of the Association, has been obliged to relinquish his office, owing to ill-health;

"AND WHEREAS he is one of the oldest members of the Association and has served its members faithfully as President, member of Council, and on numerous important committees;

"AND WHEREAS in the discharge of his official duties his kindness, integrity and ability have endeared him to all members of the Association;

"THEREFORE BE IT RESOLVED that the Executive Council of the Canadian Manufacturers' Association, assembled in Hamilton, January 20th, 1920, desire to express their profound regret that he has been forced to limit his activities in the Association; to hope that his health will be speedily restored; and to thank him on behalf of the entire membership for the long and faithful services that he has freely given to the promotion of the welfare of the manufacturers of this country."

The Council appointed a special sub-committee, composed of the president, vice-president, and general manager, with full power to act in selecting a treasurer who will act until the next annual meeting.

Board of Commerce

Reporting to the January meeting of the Executive Council, the Executive Committee referred as follows to the appeal of the Board of Commerce as to its jurisdiction:—

"The Board of Commerce, acting under the Combines and Fair Prices Act and the Board of Commerce Act, 1919, having made various orders with a view to prohibiting the taking of alleged unfair profits on sales of commodities within the statutory definition of the necessaries of life, and having in contemplation the making of other orders with the same object, have filed a stated case for consideration of the Supreme Court of Canada, to determine various questions of law and jurisdiction which have arisen before the Board, and which, in the opinion of the Board, should be solved before the Board proceeds in matters now before them, and to exercise the powers which are stated to be vested in it.

"The Board served copies of the stated case on the following persons and associations interested in the subjects of its reference:

The Canadian Manufacturers' Association.
The Retail Merchants' Association of Canada.
The Canadian Credit Men's Association.
The Crescent Creamery Co., Limited, Winnipeg.
The Toronto City Dairy Co., Limited.
The Toronto Milk and Cream Producers' Association.
The Industrial and Development Council of Canadian Meat Packers.

"The motion of the Board of Commerce to file a stated case came before Mr. Justice Idington, at Ottawa, on January 19th, who declined to deal with the matter, and expressed the opinion that the Court had no jurisdiction, but said that at any rate the application should not be to him as a single judge, but to the full Court. The Board of Commerce have accordingly inscribed a motion for hearing before the full Court on the 3rd February.

"Your Committee beg to report that Mr. W. N. Tilley, K.C., has been instructed to represent the Association."

Group Life Insurance

In accordance with the instructions issued at the last meeting of the Executive Council, a circular was issued to members of the Association informing them that facilities had been provided by the Dominion Government for the transaction of group life insurance in Canada, and giving all available information in regard to this type of insurance. It will be recalled that representations were first made by the Insurance Department through the Association to the Dominion Government in 1917 at the request of some of our own members, asking that the Insurance Act should be amended in order to provide for the transaction of group life insurance in Canada. The Insurance Department reports that our members are taking considerable interest in the subject, and that numerous inquiries have been received for further information.

Service of the Insurance Department

The following are the various points on which the Insurance Department was consulted during December, 1919, the figures representing the number of inquiries under each subject: Standing of companies, 3; policy wordings, 6; automobile insurance, 1; workmen's compensation, 1; marine insurance, 1; group insurance, 9; fire marshal's tax, 1; rates, 7; building construction, 3; automatic construction, 1; co-insurance clause, 3; inspection service, 6.

Judge Masten's Report

Following the approval of the Insurance Committee's recommendations in regard to Judge Masten's report at the last meeting of Council, a deputation of members of the Association interviewed the Ontario Cabinet in Toronto on January 7th, 1920. The committee pointed out to the Cabinet that this report of Mr. Justice Masten was compiled after a long and expensive investigation and that it advocated extensive changes in the method of transacting life insurance in the Province of Ontario. Attention was drawn to the fact that the special committee which had been appointed under the previous Government to frame legislation on this report had been dissolved with the defeat of the Government. It was suggested that a special committee of the present Legislature should be appointed at the approaching session to bring in necessary legislation arising out of this report. Attention was also drawn to the more important recommendations made by Mr. Justice Masten. In reply to the deputation, the Attorney-General, with the approval of the Premier, promised that the committee would be appointed during the

session, but he doubted that legislation would be brought down this year. When the committee of the Legislature is named, your committee will take the necessary steps to bring to their attention those sections of the report in which the Association is specially interested.

Graphic Exhibits of Canadian Industries

The Commercial Intelligence Committee have had the subject of graphic exhibits of Canadian industries under consideration for the past three months. It is becoming more and more evident that much more must be done in Canada to acquaint the Canadian public with the scope and character of Canadian manufacturing enterprise. It has long been recognized that visual observation is much to be preferred as a means of education to the printed word, and in this case it has the advantage of being much more permanent and, if exhibits are procured, they are placed before the public in its most receptive mood. Many of the goods are, to an ordinary spectator, somewhat uninteresting, but, when placed in bird's-eye view order, can be made both attractive and stimulating. In considering the goods that might form such exhibits no thought has been entertained of including such goods as are now exhibited in the rented booths and spaces or to interfere in any way with an individual's right to exploit his own product under his own name, except in so far as it may be necessary to include an odd line or article to complete some cycle of exhibits. As indicated above, the idea is to get exhibits of various allied products shown either actually or by photograph and descriptions or photographs of processes arranged in the order in which the process takes place. In many exhibitions, buildings have already been provided that are now suitably housing exhibits of a similar national character. The Commercial Intelligence Committee is impressed with the importance of this phase of publicity work, inasmuch as it can be efficiently handled in comparatively small space without interfering in any way with the revenues of Exhibition Associations, and recommends that the suggestion be passed on to the various sections of the Association, and, where sections do not exist, to groups or individual manufacturers for their information.

U.S. Foreign Trade Convention

Through the Department of Trade and Commerce an invitation has been forwarded by the authorities in charge of the Annual Foreign Trade Convention to be held in San Francisco on May 12-15 to suggest the names of representative delegates to attend this Conference. The Commercial Intelligence Committee proposes to put full information before the members to ascertain the amount of interest in the proposal. It will then be in a position to co-operate with the Department of Trade and Commerce in the matter.

Telegraph Rates

Reporting to the Executive Council at its January meeting, the Transportation Committee dealt with the question of increased telegraph tolls, as follows:—

"A careful analysis of the exhibits filed with the Board of Railway Commissioners by the G.N.W. Telegraph Company, has been made, from which it is quite apparent that the telegraph companies must have a considerable increase to take care of the enhanced costs of labor and material.

"There has been some doubt as to whether an increase could be granted without annuling the legislation of 1887, which fixed the maximum rate in Ontario and Quebec at 25 cents for ten words; but it would appear that the Board of Railway Commissioners have the power, under section 325 of the Railway Act, to grant an increase—despite any existing Act of Parliament to the contrary. However, this question will no doubt be dealt with by the Board at the final hearing in Ottawa on the application.

"Under the proposal submitted by the telegraph companies the Dominion will be divided into zones, showing an approximate average increase over the whole country of 32 per cent. It was the opinion of your Committee that fair and equitable rates would have to be considered between commercial centres and that this phase of the situation should be watched. However, after further discussion, it was decided to leave the matter entirely in the hands of the Association's representatives who will be present at the final hearing in Ottawa."

Hydro Electric Shortage in Ontario

At a meeting of the Ontario Division Executive, held in Hamilton on January 28th, 1920, a special report by the Transportation and Power Committee was submitted. It was stated that in pursuance to a resolution of the Executive, circulars and questionnaires had been issued to all the manufacturers in the Province of Ontario, requesting them to furnish information regarding the power service supplied to their plants. Many industries complained of numerous

January Circulars

Eight circulars were issued to members during the month of January, summaries of which are given below. The Association's bulletin service is now reaching considerable proportions and form an important part of the work of the organization. Members are urged not only to read the circulars carefully as they are received, but to arrange for their fyling in such a way that they can be referred to readily at need. By checking over the following list it will be seen whether any of the month's issues have failed to reach their destination.

No. 234, Jan. 4.—Circular re Export Trade issued by the Commercial Intelligence Department. This circular pointed out the desirability of stipulating that quotations be made in terms of Canadian dollar values and payment received in Canadian funds. It showed that the pound sterling is worth more in Canada than in the United States and that, accordingly, customers in Great Britain do not need to use as much sterling to settle for Canadian commodities if payment is made direct from Great Britain to Canada.

No. 235, Jan. 14.—Circular re proposed Supplement No. 13 to Canadian Classification No. 16, issued by the Transportation Department. This circular gave the new regulation with respect to long and bulky articles as substituted by the Canadian Freight Association for the present Rule 6. What was involved in the charge was explained and members were invited to advise whether the new regulation would cause any hardship.

No. 236, Jan. 28.—Circular re "Made-in-Canada," issued by the Executive Council. In this circular there was outlined what had been accomplished during the past year in intensifying the "Made-in-Canada" campaign, which the Association had carried on for some years. This included a summary of work done by the Canadian Reconstruction Association. The circular concluded with a number of suggestions as to what individual manufacturers could do to help on the campaign.

No. 237, Jan. 30.—Circular re Ontario Workmen's Compensation Act issued by Ontario Division. This circular invited members to express their views on the working of the act preparatory to the holding of a meeting of the Division for its consideration.

—— Jan. 21.—Circular re Statistics Act, 1918, issued by the Legal Department. This circular called attention to the necessity of making the annual returns to the Dominion Bureau of Statistics in the census of industry, explained what was required, and urged manufacturers to see that returns were made.

—— Jan. 30.—Circular re Special Canadian Products Number of "Industrial Canada," urging members to give the preference in buying to firms advertising in this number.

—— Jan. 14.—Circular issued by Ontario Division announcing meeting of Executive Council in Hamilton on Jan. 28, and luncheon address by Mr. T. B. Macaulay, president of the Sun Life Assurance Co., on "Closer Trade Relation with the West Indies."

—— Jan. 20.—Circular issued by Toronto Branch, announcing special meeting on Jan. 29th to hear Mr. Thomas Mulvey, K.C., Under-Secretary of State for Canada on "Blue Sky Laws."

shut-downs for various reasons, causing serious changes of manufacturing methods and general inconvenience as well as adding proportionately to the users' cost of power. In some instances, members suggested that if there are to be further restrictions of power, the more essential industries should be favored. The obvious deduction to be drawn from the inquiry of the committee is that the Hydro-Electric Power Commission has accepted contracts to supply electrical energy in excess of production.

The Executive Committee resolved that a delegation, representative of the Ontario industries, should be organized to wait upon the Hydro-Electric Power Commission at an early date for a general discussion of the whole question of electrical energy in Ontario.

Ontario Workmen's Compensation

At a meeting of the Executive Council, held in Hamilton on January 28th, 1920, the Legislation Committee of the Ontario Division was directed to issue a circular to the members in the province, inviting particulars as to their experience of the operation of the Ontario Workmen's Compensation Act, either generally or as it affects individual plants. When the information is compiled, a memorandum will be submitted to the Provincial Cabinet, suggesting desirable amendments of the Act.

The Embargo on Mechanics

Attention of members is drawn to Order-in-Council, No. P.C. 2499, passed on 24th December, which lays an embargo on the entrance into Canada of immigrant mechanics, artisans and laborers, skilled or unskilled, unless they possess a monetary qualification of $250, as well as transportation to destination, operating from 31st December last, and to remain in force until March 31st next, unless otherwise ordered.

At various points throughout Canada, according to the Minister of Immigration and Colonization, there are certain classes of workers without employment. This information must not, however, be taken too seriously, as when cabling the provisions of the Order-in-Council to their representatives in the British Isles, the Department stated clearly that the $250 regulation would not be enforced against immigrants being brought forward by employers, who had made known to the Department their intention to import help, and where such application had been investigated and approved of by the Department. The Order-in-Council applies to British as well as other classes of immigrants.

In case of urgent need for labor, our members should communicate with our Legal Department.

How a Canadian Manufacturer Can Help the Made-in-Canada Movement

1. Giving the necessary instructions to his own Purchasing Departments.
2. Insist on the purchase of Canadian-made goods for any contract or building in which he is interested or can exercise influence.
3. Favoring the employment of Canadian architects and engineers.
4. Advocate in Boards of Trade and other similar organizations the support of the "Made-in-Canada" policy.
5. Secure the co-operation of local organizations, including women's organizations.
6. Secure the co-operation of local newspapers.
7. Urge upon his own employees the necessity of asking for goods made in Canada when they make their purchases in local shops.
8. Bring the matter to the attention of his local member in the Dominion House of Commons, the Provincial Legislature and Representatives of his Municipal Government, dwelling upon the urgent necessity of buying Canadian-made goods in order to provide work for Canadians.

Fuel Supply

A committee appointed at the last meeting of Council to consider the possibility of developing in Canada a supply of fuel adequate to the needs of the country has held a meeting, which was attended by Mr. Arthur V. White, President of the Conservation Committee, Ottawa. Preliminary plans have been made and are being put into effect.

Membership Campaign

The special membership campaign organized throughout Canada during the first week of December and continued in various localities after that date, has added 455 new members to the Association up to the present. These are distributed among the divisions as follows:—

Divisions.	*New Members.*
Ontario	176
Quebec	140
Maritime	75
Pacific	32
Prairie	32
Total	455

Special membership work is still proceeding in a number of industrial localities which were not thoroughly canvassed during the Campaign.

Canadian Engineering Standard Association

Mr. R. E. Jamieson, Canadian Consolidated Rubber Co., Limited, Montreal, has been reappointed to represent the Association on the main committee of the Canadian Engineering Standard Association for the year beginning March 1st, 1920.

Fuel Controller

At its last meeting, the Executive Committee brought in a recommendation that the Executive Council record the appreciation of the Association for the valuable work done by Mr. C. A. MacGrath, Fuel Controller, Ottawa.

Conference With National Council of Women

As the outcome of a resolution of the National Council of Women, coupled with a communication from that body asking that a representative committee from the Association meet a special committee appointed by the Council to discuss how the National Council could intelligently assist in the carrying out of the made-in-Canada principle, meetings were held in the Association offices in Toronto, on January 30. The conference proved mutually satisfactory and served to settle certain difficulties which had arisen in the minds of consumers. The boot and shoe, blouse, whitewear, dress, costume and neckwear trades were represented.

Engineering Index

The Commercial Intelligence Department directs the attention of members to the Engineering Index. This is an index of all the technical articles publishd in trade and technical papers. Many of these are of vital interest to manufacturers engaged in any engineering or metal working trade, yet it would be impossible for manufacturers to acquire the informa-

tion contained in these articles unless they subscribed to the multitudinous array of trade papers covering these trades throughout the world. The Index gives brief outlines of the contents of the various articles and states in what publication they may be found. If sufficient interest is aroused, the Committee may possibly arrange to publish interesting extracts regularly so that accurate information may be available promptly for interested manufacturers.

Activities of the Quebec Division and Montreal Branch

By R. W. GOULD
Secretary Quebec Division

AT a meeting of the provincial executive held on the 20th of January, it was decided to ask John Lowe, of Montreal Cottons, Ltd., to represent the association of the province at the inter-provincial conference to be held in Ottawa in the near future to take up the question of the unification of provincial labor laws. Mr. Lowe has already done good service in connection with similar work, and the Division is in hopes that he will agree to act.

The Quebec Division Executive and the Montreal Branch have decided to publish a monthly bulletin, printed in both French and English, dealing exclusively with the activities of the Quebec Division and the Montreal Branch. This bulletin will be for the information of our own members, and it is believed that it will provide a vehicle whereby the individual member will be kept in closer contact with the Association, at all times, than ever before.

Early last month the Montreal Branch took the lead in a joint luncheon given to Roger W. Babson, of the Babson Statistical Organizations of the United States, when Mr. Babson spoke on the value of vision in business. The Kiwanis Club of Montreal and the Montreal Publicity Association joined hands in the effort, and over 600 business men attended the luncheon. The effort was a splendid success from every angle.

The Montreal Division will launch a new membership campaign in the old city of Quebec early in February. It is hoped to have the general manager with us to direct the early operations, and also Mr. Bristol, manager of the Tariff Department. The drive will be opened by a noon day luncheon at the Chateau Frontenac.

There have been a large number of meetings of the various sections during the month, and I am convinced that among the New Year resolutions of many of the manufacturers in Montreal and throughout the province has been one embodying a decision to be better and more active association members during the coming year.

The Importance of Consequential Loss Insurance

By W. H. SLATER
Manager, Willis, Faber & Co. of Ontario, Limited

IT seems somewhat strange that manufacturers are only just beginning to appreciate the necessity for some form of insurance against fire which will do more than cover the actual damage to buildings, plant and stock. Practically every manufacturer realizes that a fire on his premises will involve him in a heavy loss, however well insured the property may be, but very few indeed take the trouble to inquire whether it is not possible to protect themselves against such loss, or even show much interest when the availability of such protection is pointed out to them. Consequential loss insurance or, in the meaningless phrase by which it is generally known, "use and occupancy insurance," is, however, beginning to be appreciated and it is only a matter of time before manufacturers will consider themselves inadequately insured unless they hold policies which will provide protection against loss by fire other than the actual damage to property.

The occurrence of a fire of any serious extent naturally results in the diminution of a factory's output and frequently, of course, even though not a total loss to property, causes an entire cessation of manufacture for a period of several months. The lack of production does not, however, do away with many of the expenses consequent upon the ownership of a manufacturing establishment, although it does do away with the profits which are depended upon to meet such expenses. Everything goes out and nothing comes in. Taxes, interest on bonds and mortgages, rent of real estate or the interest on capital invested therein, all have to be met while it is necessary to continue paying salaries of many of the permanent staff and even to pay wages to a few skilled workmen who may be too valuable to lose. There are, of course, many other maintenance charges which do not cease merely because no goods are being manufactured. There are, therefore, two classes of loss not covered under the ordinary fire policy—loss of profit on goods which should have been produced and expenses which should have been provided for by the production of such goods. Consequential loss insurance takes care of both of these.

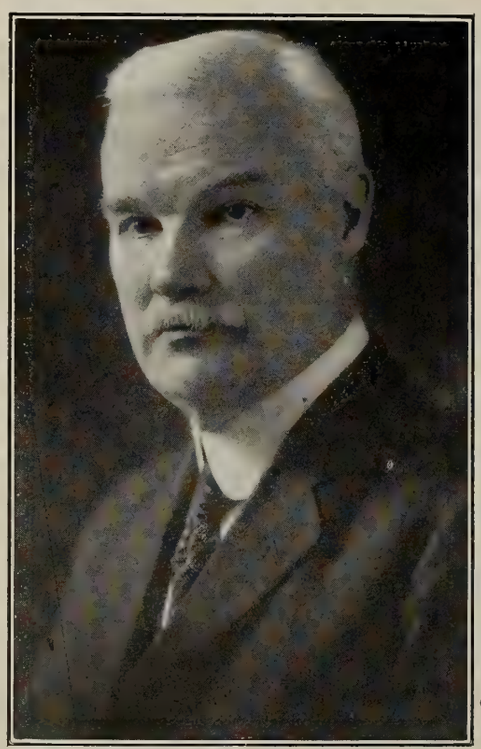
A consequential loss policy is a contract to pay, in the event of a fire, a daily indemnity equal to the actual loss sustained through non-production, until the factory can be reinstated and brought back to its pre-fire state of efficiency. The amount of the daily indemnity for which policies should be issued is based on the average daily net profit during the preceding twelve months plus maintenance charges as described above which would not cease with the cessation of production. In the case of a plant ordinarily working seven days a week, the total amount of insurance carried is 365 times the daily indemnity; in the case of a plant which does not operate on Sundays and holidays, the amount of insurance equals 300 times the daily indemnity. It is not necessary that the daily indemnity should be equal throughout the year, as that would in many instances necessitate paying for more insurance in the slack periods of the year than could actually be collected during those periods, since the policies do not in any case pay more than the actual loss sustained. A considerable amount of skill is required in drawing up a policy of this kind, and it should be entrusted only to an expert. The rate of premium which the insurance companies demand for a consequential loss policy is usually slightly less than the ordinary fire insurance rate, but so many different factors enter into a calculation of the hazard involved that every plant must be rated separately in accordance with its own peculiar circumstances.

Closer Relations with British West Indies*

Exchange Situation a Reason Why Canada Should Secure More of Its Tropical Supplies From the Indies—Commercial Union Would Render Both Parties Independent and Would Form a Combination of Great Strength

By T. B. MACAULAY
President, Sun Life Assurance Co. of Canada

LET us first of all consider our financial condition throughout the Empire. There is a danger that, after co-operating in time of war, the Empire, unless it co-operates much more closely than it does now, may actually go down in peace. Trade relationship and trade co-operation between the different parts of the Empire have long been looked upon as desirable, but the time has arrived when they are absolutely essential to Canada and to the whole Empire. That is a strong statement, but if you want to get proof of it, just consider some of the outstanding facts. Let us look at the exchange situation. When I went down to the West Indies last spring, ten months ago, I began to talk to the people there about the exchange situation, and I pointed out that at that time New York exchange was at a premium of 5 to 6 per cent. in London, and gradually increasing, and in Canada at 3 per cent., and I pointed out the seriousness of that. But since then the premium on New York funds in London has been growing; it has increased to 10, 15, 18 per cent. I was looking over some notes before I came here; the last time I made it out it was 17 per cent., and to-day it is about a 30 per cent. premium. The pound sterling in New York is worth about $3.74, and, as its par value is $4.86 2-3, that means the premium is just about 30 per cent. In other words, it takes 130 pounds of real, intrinsic value in England to pay for 100 pounds in New York; or $100 in New York has a purchasing power of $130 in London. In the same way our Canadian exchange has risen until it is over 8 per cent.



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What does that mean? It means simply that both Canada and the Mother Country have been purchasing from the United States vastly larger values of goods than they have been selling to that country, and that there is a great adverse balance of trade, being the excess of imports over exports, which both parts of the Empire are finding great difficulty in meeting; and the rate of exchange, the premium on New York funds, is the measure of that difficulty.

Before the war, exchange was at par. But how was it kept at par? At that time England, the Mother Country, had vast amounts of American securities which were owned in Britain, and on these securities interest was accruing every year in New York. That interest was available to put against the excess purchases in New York, and, if the interest was not enough, the exchange brokers just went out on the street and sold some of these American securities owned in Britain and transferred them. If the interest was not enough, the principal was available. But since the war this large amount of American securities no longer belongs to Britain; it has been transferred to American ownership, and that great amount of interest is no longer available for the excess of purchases. Moreover, the Mother country, in order to prosecute the war, has had to borrow huge amounts in the United States, partly from the public of the United States and partly from the government of that country. The total, I have heard estimated by a financier at 2,000 million pounds. On that huge amount interest now has to be paid in the United States. The payment of interest is now made the other way. Therefore, there is great difficulty in paying for those purchases; and in order to draw out the last of the American securities owned in Britain they offer this premium, that a person can now get—about 30 per cent.—beyond the American price—if he will just let them go. And how long will it be before all the rest of those securities will have been drawn out? There is not an inexhaustible supply, and the end is near at hand, and then it will not be merely a question of converting the securities that Britain owns in the United States; then it will be a question of transferring British securities to American possession.

And the same problem is going right on in Canada. We are buying from the United States large amounts, far more than we are able to sell to them. And how are we paying for them? By a steady flow across the boundary of our securities—very largely our Government bonds. One reason why the premium in Canada does not get as high as it does in England is that we are closer to the United States, they are more familiar with our securities, and we have the same currency—we have dollars—and the Americans will buy our securities more freely than they will those sterling securities of the Mother Country; therefore ours go across more easily. But that just means that there is all the greater danger, because no country can go on indefinitely paying for its purchases by the transfer of its securities; in other words, by borrowing, for that is what it comes down to.

How long can the Empire go on like this, if it is going to be borrowing from the United States all the time? I said that it was a question of the very utmost importance; I feel it is almost a question of life and death with the

* Address delivered before Hamilton Branch, C.M.A., on Wednesday, January 28, 1920.

Empire to get these things straightened out. How is it going to be done?

First of all, why is it that the United States are in this very favorable condition? In the first place, they made a lot of money during the war. While we were expending our money, they were reaping a harvest, and the war has made them wealthy, while it has impoverished the allies of the United States, who went in earlier. But, after all, that is just an accentuating cause. If you want to know the real cause you have to look at the position of the United States itself. The people of that country have to go outside of their own boundaries for hardly anything that they require. The people of the Northern States can find all the tropical goods that they want within their own boundaries, either in their own southern states or in Porto Rico, which they now own. The people of the southern states do not need to go outside; they need only go to their own northern states to get all their flour and foodstuffs and manufactured articles. Neither party needs to go outside of its own country. Neither section of the population need go outside the boundaries of the United States to get anything that they want; and the American tariff wall makes sure that they do not go.

Canada Exclusively Northern

Now, contrast that position with that of Canada. Canada is prosperous. I am a Canadian, and I am proud of Canada, and I am delighted to see how very prosperous and how very rapidly developing Canada is. But, gentlemen, I want you just to remember this fact, that Canada is exclusively northern. We are not like the United States; we have to go outside of our own boundaries for everything tropical or semi-tropical that we require. Now, take the West Indies. The British West Indies have great possibilities, but they, on the other hand, are exactly tropical and they have to go outside of their boundaries for everything northern that they want. And if we in Canada buy largely from the United States all the tropical and all the southern things that we require, and if they in the West Indies buy from the United States all, or a large proportion, of the northern things that they require, both parts of the Empire are rolling up an indebtedness to the United States, which is one of the causes of the rate of exchange, and which will in time become ruinous.

Now the question arises, can we not find a remedy? Does it not seem that it is the natural thing that the remedy should be found by those two parts of the Empire, which are naturally complementary, which unitedly make a territory somewhat similar to that of the United States in that it combines both north and south, northern and tropical? Why cannot those two make a partnership so that they will buy from each other, instead of buying from the United States? If they would do that—if we bought all the tropical things that we require from them, it would make their population greater, develop their resources, make them more wealthy, more prosperous; and if they in turn bought from us, it would develop our northern agricultural industries, our production of flour, our manufacturing and a hundred other things. Each would make the other more populous, more prosperous, each would extend the trade of the other, and each would to that extent cancel the indebtedness of the other to the United States, and to that extent rectify the rate of exchange.

It seems to me there is no need to say anything further along those lines. I will give you some figures just to show you how very acute the situation is. I have before me some figures regarding the trade of both the Dominion and the West Indies, which are illuminating. Taking such articles as flour, meat, fish, coal, butter and cheese, condensed milk, northern vegetables, cottons and other articles, which Canada is in a very favorable position to supply, the West Indies imported in 1917 nearly $36,000,000, and of this amount, what proportion did they buy from Canada? Less than 20 per cent. The great bulk of these articles went to them from the United States. I think you will agree with me that our proportion of this business should be 90 per cent, and not 20. I will take a few articles:

What West Indies Import

Of bread stuffs, the West Indies imported $7,000,000, and of this $3,875,000, or 55 per cent. only, came from Canada. Of this article our proportion should be 100 per cent.

Of fish, they bought $2,070,000, and of this but $1,287,000, or 62 per cent. from Canada.

Of butter and cheese, they took $970,000, but only $127,000, or 13 per cent., from Canada.

Of condensed milk, $625,000, $135,000, or 22 per cent., from Canada.

Of soap, $900,000, $22,000, or 2½ per cent., from Canada.

Of paper, $500,000, $103,000, or 20 per cent., from Canada.

Coal, $2,850,000, from Canada $147,000, or 5 per cent.

Meat, $1,700,000; from Canada, $12,600, or three-quarters of 1 per cent.

Lard, $520,000; from Canada, $235, or one-twentieth of 1 per cent.

Of all these articles combined, Canada supplied, as I have said, but $7,000,000 out of nearly $36,000,000, or less than 20 per cent.

Turning now to our own imports of tropical goods, we find a very similar condition. Of sugar, molasses, cocoa, coffee, rice and other tropical products, the West Indies exported about $63,000,000, and of this Canada took but $22,500,000, although she bought in all of those same articles over $108,000,000. We imported $86,000,000 worth of these tropical goods from other countries than the West Indies. It is true that in some cases these imports originated in British colonies, and were bought by us through a New York middleman, but the greater part of that $86,000,000 was of non-British origin. Here we have two parts of the British Empire, each living under the Union Jack, but each dealing chiefly with a foreign country rather than with each other, each enriching and building up that foreign country, instead of enriching and building up each other. What can be said in defence of such a condition? Can you imagine the people of the Southern States buying most of their northern produce from Canada instead of from their own northern territories? Or can you imagine the people of the northern states buying their tropical requirements from the West Indies in preference to Florida or Louisiana? Would the Americans allow Canadians to supply Porto Rico? The people of the British Empire must come to their senses, and take a leaf out of the books of the United States. The time for Empire co-operation has arrived, and for the good of both parties, and of the Empire to which we belong, Canada and the West Indies should, and in fact must, enter into a trade partnership to buy from each other, and help each other.

Situation in British Guiana

I have a special interest in British Guiana, and how serious the situation there is, may be seen by the following figures: In 1917, Guiana bought from the United States £843,000 of goods, and sold to the United States £116,000. In the same year she bought from Canada £330,000, and sold to Canada £862,000. In other words, for every dollar's worth of goods that the United States bought from her, she bought from the United States $7.27; for each dollar's worth that Canada bought from her she bought from Canada

42c. worth. I mention those figures just to show what great possibilities there are for trade development; how much they can help us and incidentally also how much we can help them. But now the question is, how is it to be done?

The Preferential Trade Agreement

We already have a preferential trade agreement with the West Indies, or rather one section of the West Indies. We have that preferential trade agreement, with which the name of Sir George Foster is associated, and that is one of the things that will be remembered to his credit. Whenever Sir George Foster's name is mentioned fifty years from now, it will be associated with that treaty. Under that agreement Canada gives a preference of 20 per cent. of the duty on a number of things, which are mentioned in certain schedules—articles originating in those West Indian colonies of the eastern group; and on the other hand the West Indies in that group give the same preference, 20 per cent. of their duty, to Canada and to the Mother Country on all those same articles. If it were not for that preferential treaty, I think it is a fact that British trade and Canadian trade would be almost non-existent in those islands to-day. That preferential treaty has saved the trade for Canada and for the Empire. But it has not gone far enough. It is a very remarkable thing that on two of the articles in regard to which this treaty has made each party sure of the markets of the other—flour on the one side, from Canada, and sugar, on the other side, from the West Indies—on both these articles there is an exception in the treaty, whereby the rate of preference is greater than the regular 20 per cent. The 20 per cent. treaty has been very beneficial, but we want to be tied together commercially just as strongly almost as if we were provinces. We want to have control of those markets, each for the other, and the question is, how?

I took a trip down through the West Indies. I may say that I happen to be President of the Canadian-West Indian League. I was drawn into this a good many years ago, and the more I have got into it, the more deeply interested I have become; not merely because it is a West Indian question, but because I have seen its importance to the whole of Canada. And I went down to the West Indies, and in my capacity as President of the Canadian-West Indian League, I was able to reach all classes and was given a very cordial welcome everywhere. All through those islands I suggested to the people that this preference should be increased, and everywhere that idea was received with enthusiasm. The suggestion was that it should be increased from 20 per cent. to 50 per cent., and not in one place did I hear one solitary word or voice opposing that idea.

The Question of Revenue

The question was raised, however—"How about revenue?" "We need revenues." Their average tariff down there is only perhaps about 12 per cent. Their tariffs are low. They said: "If we throw off this preference we shall be short of funds." Well, that question was raised at the first place where I discussed matters, but after that I raised it every time myself, in advance, and I said this: "Gentlemen, there are two ways in which you can give us a preference of 50 per cent. You can have your tariff of 12 per cent., we will say, and you can cut it down to 6, and then get into financial trouble right off; or you can let your present 12 per cent. remain as your preferential rate and make your general rate double that amount, and then you will have no financial trouble at all, and in addition to that you will equalize the inequality which comes from our giving you a 50 per cent. preference on our Canadian tariff, which is heavy, and your giving us a preference on a lower tariff, and it makes any preference something more worth while."

Nowhere did I hear a single voice that was not in favor of that, and I believe that idea will be accepted. I came away with the idea that everywhere, at any rate in the colonies that I visited, the people are absolutely ready for that increase in the preference from 20 per cent. to 50 per cent. Furthermore, I myself urged, and I heard it urged in many cases, that instead of the Act having a schedule attached to it, it should, like our British preference, apply to everything originating in either country; that the schedules should be abolished and the preference should apply to everything originating in Canada or originating in the West Indies.

One point that you will notice is the British preference, which is given down there. The people there are very strongly British, and one of the things you have to consider is this: They say—"We cannot give Canada any preference that we do not give to the Mother Country." As far as that goes, I sympathize with that point of view, but, as you will notice, there is what may be called a little inequality, because we give them the preference in our markets with no competitors and they give us a preference in their markets just on an equality with the Mother Country. On the other hand, gentlemen, the things that they need down in the West Indies, or nine-tenths of them, are things that the Mother Country cannot supply—things that are the natural products of Canada, of northern countries—things which they simply must get from either the United States or Canada. I do not like the idea of discriminating against the Mother Country in anything; and we do not lose in any case. There are few things that the Mother Country supplies; cottons are perhaps about the only thing. But the things they need are nearly all northern products, and that is entirely satisfactory.

British Guiana's Possibilities

But we now come to another suggestion. I want to point to British Guiana. British Guiana has very special problems. Most of the Colonies are pretty well developed, highly developed. Barbados has a population of about 1,100 to the square mile. That gives you an idea of the density. But when you come down here to British Guiana, you come to a place that is undeveloped; 90,000 square miles, and but little over 300,000 people, or if you exclude Indians, say, three persons to the square mile. That country is capable of tremendous development. Along the shore here is a belt of low-lying land, rather inclined to be swampy, but alluvial land just a little above the level of the sea. In fact, there is a wall all along the sea coast to keep the sea out. That land produces enormous quantities of sugar and rice. It already produces great quantities of these, but, gentlemen, I have been down there, and from what I have seen, as well as from what I have heard and have read, I believe the capabilities of that section in the way of increased production are simply enormous. I am assured that British Guiana alone could produce enough sugar to supply the British Empire. At any rate, whether that is true or not, it is capable of enormous expansion in regard to both sugar and rice. Then when you come into the middle country, here you find a country of great forests, with timber resources, rubber, balata, diamonds, gold and this bauxite for the aluminum industry, which the Americans are getting hold of. But here is a very interesting thing. When you get down here in this south-west corner you come to a great prairie section. It is natural prairie, almost inaccessible, capable of sustaining great herds of cattle, and the people there are very anxious to develop it. One of the leading men down there told me the people of British Guiana would almost sell their souls to get a railway built to open

up all that country. They have short railways here, but what they want is one that will come down here to the western and southern part.

Now I want to draw your attention to one of the peculiarities of these boundaries; that is why I got this map. This section of prairie land here does not stop at the boundary line; in fact, by far the greater part of all that huge prairie district is on the Brazilian and Venezuelan side. I have taken the trouble to write off to different authorities and I have gradually got pretty well mapped out just where it is. It is a vast region of prairie, capable of sustaining an enormous population. On the Brazilian side the people do raise cattle. And where do those cattle get an outlet? A certain number of them come down here to Manaos, but all the rest of them have to be shipped nearly 2,000 miles by the Amazon to the sea before they get an outlet. Now, gentlemen, for political purposes that would be Brazil. For commercial purposes that section of Venezuela and this part of Brazil can be made a part of British Guiana, and the development of British Guiana would mean the development of that section there, which would be made commercially tributary.

Tired of Colonial Office

These people want development in the worst way. The question is, how? They have begun to get a little tired of thinking the Colonial Office in England will do something for them in this respect, and they wonder if Canada would.

Consider the relations between Porto Rico and the United States. Porto Rico and the United States have a union that is exceptionally good. Porto Rico has its own legislature. It has its own governor, appointed by the President of the United States, who also appoints a number of other leading officials, who have votes; but it controls its own affairs through its own legislature. There is no tariff of any kind whatever between the United States and Porto Rico, but absolute free trade. The collections from the tariff, while they are at the United States' rate, do not go to the United States Government; those collections are handed over to the local government for local purposes.

Now just think of what has resulted from that. This system has been in operation since 1901, and I have the figures for the seventeen years to 1918. In 1901 Porto Rico exported $8,000,000 worth; in 1918, seventeen years afterwards, under the operation of this plan, the exports had risen to $74,000,000. In 1901 the imports were $9,000,000, and during those seventeen years they rose to $63,000,000. Think of that development. It is like a miracle almost. It is stupendous. The exports increased nine times in seventeen years; and, gentlemen, of those imports of $63,000,000 into Porto Rico, $59,000,000 came from the United States and only $4,000,000 from all the rest of the world. That arrangement has made Porto Rico prosperous; it has made the United States more prosperous. Fifty-eight millions of exports are worth something; and besides increasing the prosperity, it has forced all that trade practically into American channels.

Now, if the people of British Guiana wanted an arrangement of that kind, I should say let them have it by all means; I should be delighted. But I do not know that they do want it, and it is not for us to urge it. The people down there want principally two things. Well, in all the islands they want our trade. In British Guiana they want to increase trade with us, and they want to get their country developed. Those are the elements that they want, and it is better to meet them on their own footing. They talk along commercial lines; let us talk along commercial lines. The question is, can we get something that on the commercial line would be practically the same? I think we can. There is the alternative of having a permanent free trade agreement, ratified by the British Parliament, which would put British Guiana permanently on the same footing as Nova Scotia, for instance, so far as trade matters are concerned, but without our having to be bothered with their government. I think that probably that would end in commercial union of the Porto Rico type; but we do not need to consider that. Let us take one step at a time and let things develop as is natural.

Result of Political Union

Let us consider for a moment what would be the result if they came in as provinces—just to get our minds clarified. If British Guiana came in as a province, they would have the right to say, "Treat us as you treated the Canadian provinces. For the Maritime Provinces you built the Intercolonial Railway, for Prince Edward Island the Prince Edward Island Railway, and for the Prairie Provinces and British Columbia you arranged for the building of the Canadian Pacific. Treat us like that." Suppose that the building of that railway, which is a little over three hundred miles, would cost $20,000,000. It is a perfectly level country, a good deal of it through savannahs, and there would be only one long bridge, and the only trouble would be the dense forests in a few places. But suppose we built that. I think that if our Government could make an arrangement to get commercial control of that country just by developing it on the same basis as one of our own provinces, it would be one of the best bargains Canada ever made. Furthermore, if we had a free trade arrangement with British Guiana, it would soon be extended to other colonies. Every one of the other sugar producing colonies, like Barbados, St. Kitts and Jamaica, would before long be in on the same basis. Then, gentlemen, Canada would be a country that would be a rival to the United States. Then we would have all that tropical country which for commercial purposes would be ours, just as much as the Southern States and Porto Rico belong to the United States, and our trade would develop in an enormous way.

The next step would be to make a commercial treaty of the same kind, with a preference of, say 20 per cent., with Brazil, and then we would have all that section politically independent, but commercially part of Canada and building up Canada. Moreover, you see the little gulf in here, and the Orinoco, which is the inlet to Venezuela; Trinidad gives a footing for Venezuela, as British Guiana gives an equal footing for Central America.

Why Countries are Backward

You may ask, why do not these countries go ahead and develop as it is? Why cannot they do that? Suppose British Guiana were to say to Brazil, "We want a preferential treaty." Brazil would say right at once, "What is the use? You produce the same kind of thing that we produce." No. But suppose that Canada and British Guiana went to Brazil and said, "We will give you a preference of 20 per cent. of the duty off everything coming and going through that section of the country." I do not know whether it would extend to the whole country or not. The United States has a 20 per cent. preferential treaty with Brazil. We would give a sufficiently large preference to obtain this trade, and in return for the same kind of thing for them. British Guiana would not mind, because she would have free trade with our markets. We could build up that and make it commercially ours. If we do not do anything the United States is going to get everything down there, but by this means we should build up Canada, build up the islands and

(*Continued on page 83.*)

Technical Education Act Becomes Operative

Director Has Been Appointed and is Now Arranging the Preliminaries—Credit Due the C. M. A. for Having Promoted the Movement—Explanation of the Legislation Under which the Work is Being Carried On

By W. A. C.

THE recent appointment of Professor L. W. Gill, M.Sc., late of Queen's University, to the newly created position of Director of Technical Education for Canada, marks the culmination of years of effort on the part of those interested in this important phase of educational activity. The agitation for an adequate system of technical education dates back to a period long before the war, and it has passed through many phases, but it was only through the lessons taught by the war that the urgency of the matter was so forcibly emphasized that action became imperative.

To the Canadian Manufacturers' Association must be accorded a good deal of the credit for having forced the subject into prominence. At a meeting of the Toronto Branch on November 7th, 1918, the following resolution was passed:

"Whereas the development of Canada's immense natural resources is an imperative and immediate duty, in view of the enormous cost of the war and the need of employing usefully the immense masses of labor and skill released when peace is proclaimed;

"Whereas the close of the war affords the supreme opportunity for launching a national scheme of technical training that will make Canada's workers in all lines thoroughly efficient; that will vitalize all the school work in the various provinces by presenting a worthy national objective; that will open out new and profitable spheres for the ambitions of Canada's young manhood and womanhood, thus challenging them, from patriotic motives, to stay here and assist in up-building of this Dominion; and that will enable Canada to hold her worthy place against world-competition during peace, as she has done through her fighting forces in war;

"Therefore, resolved, that this Association arrange without delay for a delegation from its membership, as well as from other bodies willing and ready to act immediately, to wait upon the Dominion Government and ask that a Technical Training Board be added at once to the Reconstruction Committee of the Cabinet, for the purpose of formulating a comprehensive policy of Federal aid to industrial training and technical education in all the provinces of Canada, and that legislation necessary for the operation of such Board on a permanent basis be prepared for the coming session of Parliament."



L. W. Gill, M.Sc.
Director of Technical Education, Department of Labour, Ottawa

Following up this resolution, a delegation proceeded to Ottawa and laid before the Government strong reasons for early action along the lines suggested. Doubtless influenced by this delegation, the Government introduced, at the following session of Parliament, Bill No. 131, being "An Act for the promotion of technical education in Canada," under the terms of which an appropriation of ten million dollars is set aside for this purpose. The appointment of Prof. Gill is one of the first fruits of this Act.

The following summary of the legislation under which Prof. Gill will administer his department may prov illuminating. As a matter of fact, except to name the Minister of Labor as executive administrator, the Act does not provide for any stated organization to carry out its purposes.

By the term "technical education" is meant any form of vocational, technical or industrial education or instruction approved by agreement between the Minister of Labor and the Government of any province as being necessary or desirable to aid in promoting industry and the mechanical trades, and to increase the earning capacity, efficiency, and productive power of those employed in them.

The Minister of Labor, under whose supervision the Act will be administered, is vested with sole authority to judge of all questions arising out of the Act and must submit an annual report to Parliament containing information as to the work done. Officers and employees may be appointed under the Civil Service, but no organization is outlined in the Act.

The $10,000,000 is to be expended in graduating amounts, beginning with an annual sum of $700,000 in 1920 and increasing $100,000 each year until 1924, from which time to the end of the fiscal year 1929 the sum will be $1,100,000. The allotments are paid quarterly and cannot exceed the amount spent on technical education by the province within that year. Unexpended balances may be carried forward, provided that the balance does not exceed 25 per cent. of the annual appropriation. In case it does, the approval of the Minister must be obtained. The sum of $10,000 will be paid to the Government of each province every year, and the remainder of the appropriation for the year will be allotted and paid to the Government of the province in proportion to the population of each province, respectively, as determined by the last Federal census.

The terms to which the provinces must agree in order to receive the grant are:

1. All grants must be used for technical education in the manner agreed upon by the Minister of Labor and the Government of each province and approved by the Governor in Council.

2. No part of the grant can be used to meet liabilities incurred prior to July 1st, 1919, for lands, buildings, furnishings, or equipment secured for technical educational purposes.

3. Only 25 per cent. of the annual grant can be used to secure land, or to erect, extend or improve buildings, or supply furnishings and equipment.

4. Each Province shall make an annual report to the Minister.

5. The Minister shall be the sole judge of questions arising out of the Act.

6. Every province receiving a grant shall furnish evidence required by the Minister of Labor to show that the grants made are expended for technical education as provided in the Act.

Professor Gill, the new Director of Technical Education, is a native of Prince Edward Island and an honor graduate and gold medalist (1896) of McGill University in mechanical engineering. Subsequently he took up post-graduate work in electrical engineering combined with research work in magnetism, and was awarded an 1851 Exhibition Scholarship for two years, one of which was spent at McGill and the other at Harvard. After leaving the university, Prof. Gill took up commercial work with the Westinghouse Electric and Manufacturing Co., Pittsburg, where he was given special facilities for studying manufacturing methods and shop practice.

In 1900, Prof. Gill was appointed Professor of General Engineering in the School of Mining, Kingston, Ont., at that time affiliated with Queen's University. As the latter had not yet developed a faculty of practical science, he concentrated his efforts on developing university courses in the various branches of engineering. Consequent upon this development he was appointed professor of mechanical and electrical engineering and later professor of electrical engineering.

In January, 1915, Professor Gill volunteered for overseas service and was granted a commission in the Canadian Engineers. Later in the same year he offered, through Queen's University, to recruit from the students and graduates a battery of field artillery. On February 3rd, 1916, as major in command, he proceeded overseas with this battery and, after six months' training in England, proceeded with it to France. He remained in command of this unit until March 26th, 1917, subsequently commanding the 33rd and 45th batteries successively. After the taking of Vimy Ridge, Major Gill was compelled to retire from combatant service on account of ill-health, and after several weeks in hospital, was requisitioned by the War Office for special technical duty with the Ministry of Munitions. After nine months he applied for return to combatant service and was under orders to proceed to France when the armistice was signed.

Early in December, 1918, Major Gill was appointed Assistant Director of Educational Services, and was responsible for the organization and administration of all the work of the Khaki University in England, being promoted to the rank of Lieutenant-Colonel. After demobilization, Mr. Gill accepted a temporary appointment to his pre-war post at Queen's University. His experience gives him peculiar qualifications for his new work.

Minimum Wages and Maximum Hours in Manitoba

By G. E. CARPENTER,
Secretary Prairie Division, C.M.A.

THE Minimum Wage Board, appointed by the Manitoba Government to investigate and fix, in accordance with conditions in Manitoba, standard minimum wages and hours of employment and standard conditions of labor for female workers employed in shops, factories and mail-order houses in cities in Manitoba, has been carrying on its work now for about eighteen months.

It will be recalled that, when a public demand arose for some legislation for the protection of female workers, the Trades and Labor Council endeavored to secure the passage of a bill providing for the enactment of a Statutory Minimum Wage. The Prairie Provinces Branch agreed that some legislation should be enacted, but advocated that a Minimum Wage Board should be established for the purpose of dealing with each line of business separately so that ample protection should be afforded the workers, having in view all the conditions surrounding industry. In taking this action the Branch received strong public support, with the result that an Act was passed at the session of the Manitoba Legislature, held in 1918, and a Minimum Wage Board was created for the purposes set forth above.

A summary of the Board's awards to date has recently been issued and this may prove of interest to members of the Association elsewhere in Canada. While, of course, all employers are not entirely satisfied with the findings of the Board, it is a significant feature that, with two exceptions, the awards have been agreed to at a conference of workers, employers and members of the Board.

The summary is as follows:—

Number of awards made and industries affected, 44; lowest minimum now in force, $8.50 (Dauphin laundries only); highest minimum now in force, $12.50; lowest maximum hours per week, 44 (offices only); highest maximum hours per week, 52.

The prevalent minimum wage rates for various industries in the Province are as follows:

City of Winnipeg and St. Boniface.—Laundries, groceries, pickles, macaroni and vermicelli, yeast, confectionery and biscuits, soap, paper box, cigars, drugs, abattoirs, creameries, $11; laundries (Brandon), $10.50; laundries (Dauphin), $8.50.

Note.—Previous to August 17th, 1919, minimum wage rate in the City of Winnipeg and St. Boniface for laundries, pickles and macaroni and vermicelli was $9.50, and for groceries, yeast, abattoirs, creameries, confectionery and biscuits, soap, paper box and cigars, $10. Also, minimum wage rate for laundries in Brandon previous to this date was $9.

Minimum wage rate for the following is $12.—Departmental stores five, ten and fifteen-cent stores, retail stores, bags, gloves, bedding, jewellery, auto top, caskets, leather goods, tents and awnings, paints, rags, brooms, seed packing (Winnipeg and Brandon—separate regulations), tailoring, knitting, millinery, printing, etc., mail order, ladies wear, ladies' hats, garment and regalia, fireworks factories (Brandon only), dyeing and cleaning, hair dressing, furriers, dressmaking, amusement houses.

Minimum wage rate for the following is $12.50.—Restaurants, hotels, offices.

Maximum hours of labor per week for various industries are as follows: Laundries (Winnipeg, Brandon and Dauphin), macaroni and vermicelli, seed packing (Brandon only), fireworks (Brandon only), shops and stores (Brandon only), hotels, 52 hours; groceries, pickles, departmental stores, cigars, gloves, bedding, auto top, caskets, leather goods, tents and awnings, paints, rags, brooms, seed packing (Winnipeg only), tailoring, knitting, millinery, dyeing and cleaning, 50 hours; confectionery and biscuits, retail stores, soap, paper box, bags, drugs, jewellery, 49 hours; yeast abattoirs, creameries, five, ten, and fifteen-cent stores, printing, etc., mail order, ladies' wear, ladies' hats, garment and regalia, hairdressing, restaurants, furriers, dressmaking, amusement houses, 48 hours; offices, 44 hours.

Building Increases

Permits Issued During 1919 Were Very Considerably in Excess of Those of 1918

A review of building operations in Canada during 1919, prepared by *Construction*, indicates a very substantial increase in activity. Reports of building permits received from thirty-eight important centres give a total of $73,684,453, as compared with $35,454,930 in 1918, an increase of 107.82 per cent. Figures were in a number of cases incomplete, so that final returns may be even more favorable. Only in two places were decreases recorded, and both were relatively small.

Replies to an enquiry sent by *Construction* to the building inspectors and city engineers of various municipalities are very optimistic in tone, and indicate a heavy volume of building work for the coming year. Practically every section in the Dominion is looking forward to a period of activity which, if fully realized, will witness operations approaching, if not equalling, the heavy investment of the boom days of 1910-11.

Boot and Shoe Manufacturers Get Together

Important Convention of Shoe Manufacturers' Association Held in Quebec—Meeting Does Much to Develop Spirit of Camaraderie—Members Decide on a Vigorous Advertising Campaign—Other Important Business Transacted

By ALEX. MARSHALL
Secretary-Treasurer, Shoe Manufacturers' Association

AN historic spot was selected to hold an historic Convention. Quebec, the cradle of the shoe trade in Canada, witnessed the first Annual Convention of the Shoe Manufacturers' Association after its first year of organization work and growth.

For an infant, it is surprisingly lusty and vigorous. About a hundred delegates attended the various business sessions. At the social functions, the hide, leather and allied trades swelled the total to between 300 and 400.

The same officers were re-elected for the coming year, the active officers being: President, F. S. Scott, Getty & Scott, Limited, Galt; First Vice-President, Jos. Daoust, Daoust, Lalonde & Co., Ltd., Montreal; Second Vice-President, J. D. Palmer, Hartt Boot & Shoe Co., Limited, Fredericton, and the Executive Committee, composed of one representative for every seven members or fraction thereof, in Ontario, Quebec, Maritime Provinces and British Columbia.

Progressive Programme Mapped Out

Already the Association has proved its worth to the members, and a very progressive programme has been laid out for the coming year. As a result of committee work, a scheme of standardization of cartons has been adopted, reducing the almost unlimited number of sizes previously used to 12 standard sizes. This will enable the shoe manufacturers to effect economies in placing their orders, will assist in the standardization of containers, and will enable the retailers to preserve neatness and uniformity in their shops.

Another committee has been developing plans in connection with the improvement of technical educational facilities for the shoe trade. Inasmuch as Montreal produces about 46 per cent. of the shoes made in Canada, and Quebec City about 18 per cent., with an additional small percentage made in some of the intermediate towns, it was felt that the logical place for the development of the technical education system was in the Province of Quebec. The matter has already been discussed with Sir Lomar Gouin, the Prime Minister, and it is anticipated that the Provincial Government will be ready to stimulate shoe manufacturing in Quebec by providing adequate facilities for the training of shoe workers in the technical and cultural subjects which will not only make them better shoemakers and better equipped for the battle of life, but will improve the character of the citizenship of this country.

A number of resolutions were passed at the meeting dealing with subjects of vital interest to the shoe manufacturers, and possibly the most important was that in which the Association endorsed the proposal of the Shoe Retailers' Association to hold a style show in Montreal in the week of July 12th to 17th next. The active co-operation and assistance of the Shoe Association in making the Shoe Style Show has been pledged, and undoubtedly the retailers will be ready to carry this project through in the best possible style, particularly when it will be happening in conjunction with their own annual convention.

It has also been suggested that some provision should be made for getting a selection of the shoes shown at the Style Show to be assembled into a made-in-Canada exhibit for the Canadian National Exhibition in Toronto.

Very valuable contributions to the available information regarding the shoe industry and surrounding conditions were contributed in addresses by Mr. W. P. Bennett, of "Hide and Leather," Boston. Mr. Bennett dealt particularly with the trend of leather prices and expressed the opinion that firm prices will hold for some time yet to come. Mr. R. D. Fairbairn, a member of the Canadian Trade Commission, spoke eloquently with regard to the necessity of developing a great Canadian export trade, and put before the shoe manufacturers the obligation that is laid upon them to utilize their utmost efforts to seize and hold their fair share of export business. Mr. T. H. Reider, president of the Ames, Holden, McCready Company, Montreal, but still a newcomer in the shoe business, gave a very able address which he entitled "A Freshman's Survey of the Shoe Industry," in the course of which many points were brought to the attention of the shoe manufacturers which were suggested as improvements in the conduct of the shoe business. In his closing remarks, Mr. Rieder emphasized the importance of having a fully equipped secretarial department, which would deal with all matters of public interest relating to the shoe trade and co-operate with Government departments in assembling statistics and other necessary information. This matter was also made the subject of a resolution at the meeting, and the Executive Committee is charged with the duty of considering the best ways and means of putting the question before the membership at large.

A $50,000 Advertising Campaign

For six months or more, arrangements have been under way to inaugurate an extensive "Canada Product" campaign, directing the public's attention specially to the shoe trade. Mr. J. D. Palmer, of the Hartt Boot & Shoe Co., Limited, Fredericton, second vice-president of the Association, delivered a splendid address covering the whole situation, and ably spoke, in moving the resolution supporting the spending of $50,000 on an educative campaign, directed to the general public, retailers and their clerks, with a view to placing the high standard of the Canadian shoe industry before the Canadian people and earning the place in the public mind that the importance of the industry warrants. The resolution was unanimously carried, and Mr. Palmer is the chairman of the committee charged with the proper carrying out of this campaign.

Although much important business was dealt with at the meeting, the outstanding feature of the whole convention was the spirit of camaraderie that was in evidence throughout the whole membership, composed as it is of two large elements, English-speaking and French-speaking Canadians. It was most interesting to note the approval with which was met on all sides the various proposals that came up.

There was practically no serious divergence of opinion on any subject, and a much better personal understanding was arrived at by the manufacturers from all quarters than had previously been the case. Any important comments delivered from the floor of the meeting were immediately rendered in English if the original was French, and in French if the original was English. Not only that, but it was very interesting to note the way in which the French and English members met together and discussed personal matters at the luncheons and other social features. Too high praise cannot be given to the hospitality of the shoe and leather trades of the City of Quebec. The get-together spirit was more than ever in evidence on the last night, when the Association banquet was held. On this occasion the speakers were the Hon. Arthur Meighen, a member of the Cabinet of the Dominion Government, and Sir Lomer Gouin, Premier of the Province of Quebec.

On the whole, it would be difficult to conceive a more satisfactory convention, and it is to be hoped that in many other industries similar rapprochements will come about.

Ontario Shoe Manufacturers

Annual Meeting of Provincial Association Held in Toronto Last Month—Several Interesting Addresses Delivered and Officers Elected

A well attended meeting of the Ontario Shoe Manufacturers' Association was held in Toronto on Wednesday, January 7th, 1920. In the morning, the members divided into groups according to the classes of goods made and exchanged information for their mutual advantage.

The afternoon session was devoted to subjects of general interest. The members had the privilege of hearing addresses from Mr. S. R. Parsons, the Canadian employers' delegate to the recent International Labor Conference, on how the proposals and activities might affect Canadian industry, and from Mr. H. V. F. Jones, assistant general manager, Canadian Bank of Commerce, who gave a most interesting review of financial conditions during the war and the effect of exports, imports and war loans on the exchange situation. Mr. J. R. K. Bristol also made a short address on the Canadian tariff.

At this meeting the Ontario Association endorsed the action of the Executive Committee of the Shoe Manufacturers' Association of Canada in coming to a friendly arrangement with the Retailers' Association regarding the cost of cartons and cases and special features in shoes. They also endorsed the policy of holding a great Shoe Fair in Montreal on July 12-17 next, and are advocating that the shoes assembled there be retained for further showing at the Canadian National Exhibition in Toronto.

The shoe manufacturers also expressed themselves in favor of having imported shoes marked with the country of origin, and Canadian shoes also specially distinguished. This portion of the programme will probably be best taken care of in connection with the proposed general advertising campaign on which the shoe manufacturers are about to embark.

The elections took place at this meeting resulting in Mr. A. Brandon, of Brantford, and Mr. G. W. McFarland, of Williams Shoe, Limited, Brampton, being re-elected Hon. Chairman and Chairman respectively. The rest of the Executive Committee is composed as follows: Vice-Chairman, G. H. Ansley, Perth, Ont.; F. H. Ahrens, Kitchener, Ont.; S. H. Parker, Preston, Ont.; C. S. Corson, Toronto, Ont.; W. H. Duffield, Hamilton, Ont.; N. M. Davison, Kitchener, Ont.; the latter representing the felt shoe manufacturers. Mr. F. S. Scott, M.P., of Galt, chairman of the Shoe Manufacturers' Association of Canada, was also made an ex-officio member of the Ontario Executive.

Clay Products Manufacturers

Three-Day Meeting Takes Place in Toronto—Much Valuable Information Conveyed to Members Through Addresses by Experts

Members of the Canadian National Clay Products Association convened in Toronto on January 20, 21, and 22, for their eighteenth annual meeting. The president, Wm. Burgess, Todmorden, opened the proceedings with an address urging co-operation. The report of the Executive Committee and also that of the secretary-treasurer was made by Gordon Keith.

The Tariff Committee reported that efforts had been made to secure some amendment in freight rates as applied to clay products. Just for the present the matter was in abeyance until a projected increase in freight rates had taken place. In the meantime, as many clay workers are members of the C.M.A., the committee had arranged to take advantage of the tariff and transportation services of the larger association.

The Technical Education Committee, through Mr. Millard F. Gibson, chairman, reported progress on an important scheme for the education in Canada of those desirous of taking up the study of ceramics. Heretofore there have been no opportunities for technical training in Canada or for investigational work on the development of our great natural clay resources. No particulars of the committee's report are available as yet, but the meeting was given to understand that some very outstanding developments are pending. It is expected that in February a comprehensive report will be made public.

The election of officers resulted in the reappointment of last year's executive by a unanimous vote. The members of the executive are: Thomas Kennedy, Swansea, past president; William Burgess, Todmorden, president; Ryland H. New, Hamilton, 1st vice-president; Millard F. Gibson, Toronto, 2nd vice-president; T. H. Graham, Inglewood, 3rd vice-president; Gordon Keith, Toronto, secretary-treasurer; and the following councillors: H. B. Hallatt, Tilbury; W. H. Freeborn, Brantford; N. T. Gagnon, Montreal; Andrew Dods, Mimico; John S. McCannell, Milton; F. B. McFarran, Toronto; Chas. A. Millar, Toronto; C. B. Lewis, Toronto.

During the convention a number of valuable papers were read and delegates were given an opportunity to see some of the clayworking establishments in the vicinity of Toronto. The annual banquet took place on the evening of January 21 the guests including Brig.-Gen. C. H. Mitchell; J. C. Reilly, Secretary of the Association of Canadian Building and Construction Industries, and Hon. H. C. Nixon, Provincial Secretary of Ontario.

In his address on "Pottery Possibilities in Canada." Millard F. Gibson, manager National Fireproofing Co., Toronto, discussed the possibilities of developing manufactures of fine porcelain, glassware and clay products generally to take the place of the present considerable quantity imported from Europe and the States. Mr. Gibson told of the many interesting examples of fine pottery, glassware, etc., which have been made under the direction of Professor Keele, at Ottawa. He instanced the discovery of a new bed of white clay near James Bay, which, with the large deposits of feldspar and other minerals, will make it possible for Ontario to go in for the manufacture of fine chinas, ornamental glassware, optical glass, etc., and he felt that every encouragement should be given to the development of the ceramic industry on the widest scale possible.

The Control of Profiteering in Great Britain

Canadian Manufacturers who Have Been Following the Operations of the Board of Commerce in this Country, will Find Matter of Interest in Contrasting its Activities with those of the Bodies Formed to Administer the Profiteering Act in Great Britain

By JOHN C. KIRKWOOD

ON August 19th of the past year Great Britain put on her Statute books the Profiteering Act. This Act provided for setting up local tribunals to receive consumers' complaints, for the penalizing of those found guilty of profiteering, and gave permission to local authorities to trade.

The passage of the Act was a somewhat hasty proceeding, and was put through just on the eve of the summer holidays, when members of Parliament were fatigued and eager to bring an arduous session to an end. The Bill was admitted to contain imperfections, and nobody liked it any too well, but it seemed necessary to put it through to allay public irritation.

The arguments in favor of the passage of the Bill were:

1. Profiteering has a profound deterrent effect on export trade. High prices at home induce manufacturers to concentrate on the home market, whereas the necessities of the country require the stimulation of export trade.
2. If and when domestic prices are at an unreasonably high level, with unconscionable profits, the British market would be flooded with unnecessary articles and the trade balance would be swung still farther against Great Britain.
3. Profiteering leads to social unrest.

As against these arguments it was urged by critics and opponents to the Bill that:

1. There was not enough good in the Bill to counteract the positive harm which it would cause to trade.
2. It embodied principles unfair and unjust from the point of view of English law.
3. It would create another vast and expensive department.
4. If the prices of all the articles which could be brought to the attention of the tribunals—clothing, furniture, foods, cigarettes, and the like—were to be thoroughly investigated from the beginning to the end, there would have to be a Costings Department with highly trained experts. This would take a very long time, but the Act was to last for a period of only six months.
5. The Bill contained no indication that trusts would be dealt with, and how could small local tribunals deal with trusts?
6. The Act would make small traders victims of trial and penalties by local tribunals.

On the charge that the Bill made no provision for dealing with trusts, Sir Robert Horne, Minister of Labor, said: "For the first time the Board of Trade will have powers to make those investigations without which no trust or combine can be broken up or its prices dealt with." Sir Auckland Geddes, President of the Board of Trade, speaking on behalf of the Bill, gave the following definition of profiteering:

"Profiteering is to make an unreasonably large profit, all the circumstances of the case being known, by the sale to one's fellow citizens of an article which is one, or one of a kind, in common use, by or for profit."

Methods of Enquiry.

The Profiteering Act authorizes the Board of Trade to make orders applying the Act to any article or class of article declared by the Board to be articles of a kind in common use by the public, or material, or machinery, or accessories used in the production of such articles.

The provisions of the Act are administered by means of committees or tribunals of three grades—central, local, and appeal.

The Central Committee

The Central Committee is presided over by Mr. C. A. McCurdy, K.C., M.P., Parliamentary Secretary of the Ministry of Food, and Chairman of the Committee on Trusts. He is assisted by such deputy chairmen as he may have appointed.

In general the functions of the Central Committee are to investigate cases of alleged profiteering by persons other than retail traders, and when necessary to institute prosecutions. In pursuance of this duty it will itself collect information as to prices, costs, and profits, and will study the methods and practices of the various trades or groups of trades, including trusts and trade combinations concerned in the production and distribution of goods to which the Act is applied. In order that the Central Committee may be in a position to advise the Board of Trade as to what may be considered a reasonable price for any article, it is empowered, should necessity arise, to appoint sub-committees to carry out the investigation into the cost of production throughout the various stages of manufacture.

Local Committees

The local authorities, that is to say, in England and Wales, the Common Council for the City of London, and the Councils of the Metropolitan and Municipal Boroughs, and of the urban and rural districts, and the Council of the Scilly Isles, and in Scotland, the Councils of the County, and the Councils of the Royal, Parliamentry, or Police boroughs, were invited to appoint local committees in accordance with regulations made by the Board of Trade. To these the Board of Trade has delegated power to investigate and hear complaints of alleged profiteering on the part of local retailers, and either to dismiss the complaint or to declare the price which would yield a reasonable profit, and require the seller to repay to the complainant any amount paid by the complainant in excess of such price. It is provided by the Act that the expenses of these committees will be defrayed by the local authorities out of local funds or rates.

Appeal Tribunals

Appeal Tribunals to hear appeals from the decisions of local committees, as provided by the Act, were appointed for each county or group of counties in England and Wales by the Board of Trade. Chairmen of county councils in England and Wales were invited to convene meetings of representative people to suggest to the Board of Trade names of suitable persons for membership of these tribunals. The Secretary for Scotland was asked to undertake, on behalf of the Board of Trade, the formation of Appeal Tribunals

for Scotland. The Irish Government was consulted as to the application of the Act in Ireland.

Thus it will be seen that two separate and distinct lines of action have been contemplated:

1. Central investigation by the central committee into the cost and profits of production and distribution of goods to which the Act has been applied.
2. Local investigation by local committees (subject to appeal as provided by the Act to Appeal Tribunals) into such complaints as may be made by members of the general public concerning the prices charged and the profits made in the retail distribution of goods to which the Act has been applied. In any case in which investigation discloses actual profiteering prosecution may follow.

It was an instruction of the Board of Trade to all committees and tribunals established under the Act, that no action shall be taken which will hamper or restrict legitimate commercial enterprise throughout the country. It is not the intention of Parliament, as expressed in the Act, to prevent any person or company from making a reasonable profit on their business transactions.

Setting Up the Machinery

The regulations for local committees and appeal tribunals were sent to some 2,000 local authorities, together with a circular signed by the President of the Board of Trade explaining the regulations, and a form to be returned within three days of the appointment of the local committee, with particulars of the persons appointed. These regulations were as follows:

The local committees will consist of not fewer than seven nor more than 25 persons. Two members should be women, three must be members of the local food control committee, and it is stated that it is imperative that the working classes should be adequately represented. Generally speaking it is desirable that cases should be heard by a body of not more than five persons.

In some places it may be convenient for the committee to sit in separate sections and at different centres, and sub-committees may therefore be set up, which must have one woman member and adequate representation of labor. These sub-committees will have all the powers of the local committees, other than that to take proceedings before a Court of Summary Jurisdiction. Where they think such proceedings should be taken they will report to the local committee.

All complaints to the local committee shall be heard in public, unless the local committee in any particular case, having regard to the interests of the parties and to all the circumstances, direct that the complaint or any part of the proceedings thereon shall be heard in private. The local committee may exclude the parties and the public at any time for the purpose of conferring upon any question affecting the decision of the complaint.

Questions before the local committee shall be decided by a majority of such of the members of the committee as are present and vote, but a member shall not take part in the consideration of, or vote on, any question relating to a complaint against a person with whom he is a trade competitor, or in which he is otherwise personally interested. A member shall not vote unless he has been present throughout the proceedings.

The Hearing of Complaints

The procedure laid down for the lodging and hearing of complaints requires a complaint to be made in writing to the office of the clerk to the local committee, within four days of the sale or transaction which is the subject of the complaint. Where the grounds of complaint appear insufficient, the committee may dismiss the complaint without calling on the respondent; but where a *prima facie* cause of complaint has been disclosed, the local committee shall hear the complaint, the complainant and the respondent being given at least three days' notice.

The local committee may summon any witnesses and take evidence on oath, and may call for the production of any documents relevant to the complaint. The complainant and respondent may conduct their own case, or may be represented.

If the local committee are satisfied that an unreasonable profit has been made or sought, they shall declare the price which would yield a reasonable profit, and shall require the seller to repay to the complainant any amount in excess, and they may take proceedings against the seller before a Court of Summary Jurisdiction. In declaring the price which would yield a reasonable profit, a rate of profit which does not exceed the fair average rate earned under pre-war conditions shall not be deemed unreasonable.

Seller's Right of Appeal

Any seller aggrieved by any order or decision of the local committee, other than a decision to take proceedings before a Court of Summary Jurisdiction, may appeal to the Appeal Tribunal for the area against the decision, and any order made by the local committee shall be suspended until the decision of the Appeal Tribunal.

Complaints relating to profiteering or alleged profiteering arising out of the retail sale of any article or class of articles of food or drink, to which the Act may be applied, shall be referred by the local committee to a special sub-committee to consist of five members, of whom not less than three shall be members of the local food control committee.

The regulations with regard to the Appeal Tribunals will in the main be the same as those for the local committees. A list of the Appeal Tribunals will be sent to the local committees in due course. Any appeals lodged against the decisions of the local committees before the list is circulated will be retained by the clerk to the local committee.

Wholesalers Charges

In his covering circular the President of the Board of Trade directs that if, on the investigation or determination of any complaint, it shall appear to the local committee or Appeal Tribunal, that the price charged or sought, about which the complaint was made, is in view of all the circumstances unreasonable, but that the unreasonable price so charged or sought was due to the price charged by the wholesale trader, the local committee or Appeal Tribunal should dismiss the complaint or allow the appeal as the case may be, and should refer the case to the Board of Trade.

Local committees and Appeal Tribunals should bear in mind that it is not the intention of the Board of Trade to take any action which will hamper or restrict legitimate commercial enterprise, or which will prevent any person or company from making a reasonable profit on their business transactions.

Formation of Local Tribunals

The establishment of local committees lagged in many communities, the local authorities being either luke-warm in the matter of profiteering, or else found no great clamoring on the part of the citizens for the appointment of a local committee, or for the punishment of profiteers. All told, about 1,000 committees out of a possible 2,000 have been appointed.

The selection of those to serve on local committees rests with the local authorities. The general principle governing appointment is that no member shall sit to consider a case in which the trader complained of is a competitor with him-

self. In some communities no traders are permitted to be members of the local committee. In at least one place the Town Council elected themselves *en bloc* to serve on the profiteering tribunal, but their act was protested against, it being stated that fifty per cent. of the town council are members of trades in which it is alleged profiteering takes place.

Complaints by the Public

It is generally true that the public has not complained to the extent that was expected, and in some places the local committees have had nothing to do. Various explanations are given for this apparent apathy on the part of the public. "People have become so used to high prices," said the Town Clerk of a London borough "that they do not realize yet what they can do to reduce them."

Many complaints made, while not frivolous, are useless, because they refer to things outside the articles scheduled. Typical of the complaints made are:

"A butcher's manager was summoned for making an excess charge of 4d. on a joint of veal. He was sentenced to prison for 21 days, his employer was fined £50 with costs, and a shopman was fined £5."

"A draper was ordered to refund 1½d. to a customer who had been charged 1s. 6¾d. per yard for 3 yards of sateen lining."

A complaint was made that a draper had charged 5½d. for a reel of crochet cotton of which the pre-war price was 1½d. The trader said the price was fixed by the makers, and the committee who considered the retailer's profit not unreasonable, but decided that the matter should be reported to the Board of Trade so far as the wholesaler is concerned.

Another complaint was an alleged charge of 5d. for 1 oz. of pepper, against the usual price of 2d. A charge of 8/- a lb. for chocolates as against 4/-, the price when this article was controlled.

Complaints have been made against the prices charged by restaurants, against the prices charged for the rent of gas meters, against the prices charged for coke, Epsom salts, pepper, clothing, false teeth, medal ribbons, military badges, toilet requisities, fish, cigarettes, and clocks.

Widening the Scope of the Act

It became apparent very early in the history of the operations and applications of the Profiteering Act that its scope required to be widened. As originally framed, the Act dealt with prices of articles "in common use," but excluded every variety of "services rendered." Also, the original list of designated articles or kinds of articles was found to be too narrow. Accordingly there has been a widening of the scope of the Act. The first schedule of the goods with the prices of which local committees had to deal was as follows:

Clothing and articles of personal use	Articles for sewing and knitting
Household goods	Furniture (not antique)
Building materials	Food

Subsequently, a supplementary schedule was issued, and includes among other things:

Books	Hay	Pencils
Gas meters	Toilet articles	Drugs
Stoves	Fountain pens	

Articles of food sold in restaurants and tea shops were included in the first draft of the first schedule, but these involve personal service and were, therefore, struck out. They are not likely to be reincluded in any new schedule. Nor is wine sold at restaurants at exorbitant prices. Wine is not regarded as an article "in common use," and in any case it can be bought more reasonably from a wine merchant. The difficulty of fixing a reasonable charge in a restaurant where the surroundings count for so much and involve considerable expense is felt to be insuperable.



From the "World," London

The New Invasion

Trusts in Great Britain

So far as publicity is concerned, it has concerned itself, in connection with the Profiteering Act, to the prices paid retailers by consumers. That is, it has had little to say about trusts, though the Act in its provisions includes trusts and the profiteering supposed to go with trusts.

That there are trusts and monopolies in Great Britain everybody knows, and probably they are increasing rather than diminishing in number; but the British public have not been incensed by their acts and power as have been the people of the United States in that country. Whether or not British trusts have been making the cost of living appreciably higher in their own country has not been established; yet they are under suspicion, and there is a demand and a machine for their investigation. The machine is the

Central Committee

authorized by the Profiteering Act, the chairman of which is Mr. C. A. McCurdy, as previously stated. The Committee consists of 119 members, and its composition is fairly representative of commerce, finance, co-operators, trade unionists, and the general public. It is the Parliament of the Profiteering Act.

It includes representatives of both employers and workpeople in the following industries: Food and groceries; agriculture, cotton, linen, wool, and clothing of all kinds; leather, boots and shoes; metal and hardware, including

(*Continued on page* 78.)

Canada's Industrial Expansion

A Record of Progress

Canadian Plant Now Operating

Kenworthy Bros. Co., of Stoughton, Mass., start Manufacturing at St. Johns, P.Q.

During the past month the branch plant which Kenworthy Bros. Co., of Stoughton, Mass., have erected at St. Johns, P.Q., started operations under the name of Kenworthy Bros. of Canada, Limited. They are manufacturing the same line of goods as in the United States, the principal product being a treated wool felt, which they call "Kendix," and which is used very largely as an insole in rubber and leather shoes. They also cut felt heel pads and box toes and handle all classes of felt, imitation leather, etc. The Canadian office and plant is in charge of Mr. A. P. Hittl.

Beaver Board Companies Expand

Thorold Plant being Extended by Addition of New Finishing Plant

At the Thorold plant of the Beaver Board Companies there is at present under construction a finishing plant, 125 x 362 feet, of brick, steel and concrete, mill type construction. The plant will have a capacity of 500,000 feet per day and will provide employment for approximately 100 men. The companies are also building a new office, 48 x 80 feet, of brick, wood and concrete. They expect to have these buildings finished and mills in operation by March 1. They are also extending their dwelling accommodation, having just finished three single houses and nearly finished seven double houses.

Structural Steel Mill

Algoma Steel Corporation Undertakes Establishment of an Important New Industry

It is now definitely announced that the construction of the proposed structural steel mill at Sault Ste. Marie will be proceeded with at once by the Algoma Steel Corporation. It will cost from $6,000,000 to $7,000,000, and will take from 12 to 15 months in building. When it is completed it is the hope of the Corporation that they will be able to supply the larger part of Canadian consumption of structural steel, of which at present 90 per cent. is imported from the United States. The new mill will provide work for 600 operatives.

Making Super-Cement

St. Mary's Cement Co. Have Started Manufacture of New Product for Canada

A new product for Canada is now being turned out by the St Mary's Cement Co., this being super-cement, the invention of an Englishman named Goddard. It was used effectively by the British Government during the war for petrol tanks and other construction work, and is a waterproof material with greater tensile strength than ordinary cement. Rights for Canada and the United States are held by Monk, Manhard & Dawson of Montreal, who will put up a plant for the manufacture of the special compound used with cement to make super-cement. For the present, this compound is being made in the St. Mary's plant, but it will ultimately be produced on a large scale for sale to cement companies generally.

New Paper Box Plant

Company Formed in Peterborough Leases Space for Establishment of New Industry

The increasing use to which paper is being put in the manufacture of all sorts of articles is attested by the growing demand for paper boxes. A new company, which starts out with a favorable outlook, is the Peterborough Paper Box Co., Limited, incorporated with an authorized capital of $50,000. The company have leased premises in the Grand Central Block on George Street. They occupy space 51 x 24 feet, three storeys high and the building has been renovated and equipped for the purpose. About fifteen or twenty hands will be employed at first, but so much encouragement has been received in the way of orders, even before operation has commenced, that rapid development is looked for.

Will Double Production

Regent Knitting Mills, Limited, Are Adding to their Plant at St. Jerome, P.Q.

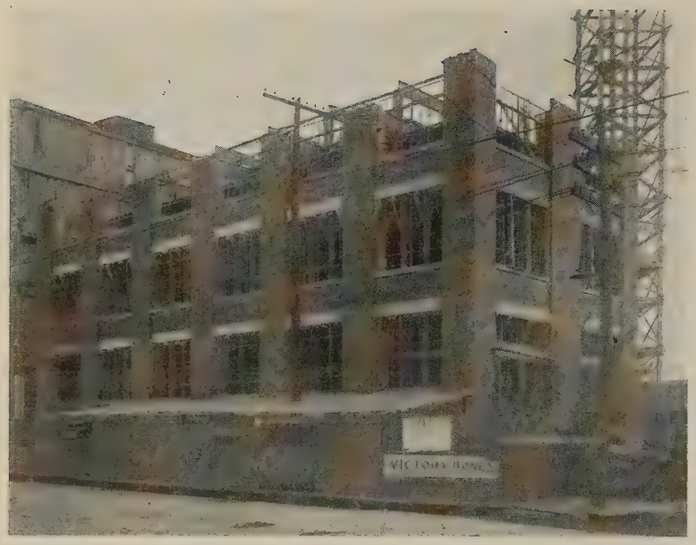
The Regent Knitting Mills, Limited, are practically doubling the capacity of their plant at St. Jerome, P.Q., by placing an additional storey on their mill. This will give 7,500 square feet more manufacturing space in the old mill and the same area in the new worsted spinning mill. The addition will be completed and ready for operation about the middle of February. About 100 additional hands will be required, for the most part operators on knitting machines, and this will give the company a total of 375 employees. Production will be increased from about 700 dozen pieces weekly to 1,400 dozen pieces.

New Developments Planned

Following Reorganization of Alaska Bedding and Their Associated Companies

On December 15th last a reorganization of the Alaska Bedding Companies and their associated companies, the Ideal Bedding Co., Limited, Toronto, and the J. H. Sherrard Manufacturing Co., Limited, Montreal, took place. A closer alliance was formed with the Simmons Company, of Kenosha, Wis., and the Canadian companies, while under the same management as before, will be operated under the name of Simmons, Limited. In announcing the change, Mr. J. H. Sherrard stated:

"Some years ago our companies secured the Canadian rights to the Simmons bed patents, which resulted in a great improvement in metal beds made in Canada. Early this year (1919), we made an arrangement with the Simmons Company to import their new 'Top Line' of 'designed' light steel beds, and these have taken so well with the public that we



A London Enlargement

View of new building being erected by McClary Mfg. Co. for storage and shipping purposes

were compelled to plan for their extensive manufacture in Canada. In endeavoring to arrange for this, it became apparent that we could only obtain the full benefits of the Simmons products and advertising for our customers and the public by our amalgamation with the Simmons Company, and I am greatly pleased to inform you that this has been accomplished.

"The company management will remain unchanged. The writer will continue to direct its destinies as president. Mr. Bradshaw will be vice-president, in general charge of production, with Mr. Johnson in executive charge of sales. Mr. Abbott will continue his able management at Montreal plant, Mr. Browne at Toronto, Mr. Bromley at Calgary, Mr. Baker at Winnipeg, and Mr. MacLaren at Vancouver."

Additions and alterations are being made at the Montreal, Toronto, and Winnipeg factories to take care of increased business, and the executive have plans in view for further expansion, details of which are not yet ready for announcement.

New Printing Plant

Murray Printing Co., Limited, of Toronto, Propose to Erect Large New Building

As an evidence of how the printing industry is expanding, it may be noted that the Murray Printing Co., Limited, one of the oldest and largest printing companies in Toronto, are preparing to erect a new building which will greatly increase their present capacity. The site selected is at 192-194 Spadina Avenue, running through to Cameron Street and giving 60 x 205 feet of ground. The building will be six storeys high, of mill construction, equipped with the latest fire protection appliances and will contain about 36,000 square feet of floor space. The very latest printing machinery will be installed and it is hoped to have the building completed by about July 1.

Manufacture Moving Pictures

New Company Formed in Winnipeg to Undertake Local Development of Films

The Western Film Manufacturing Company are a new concern recently established in Winnipeg for the manufacture of moving pictures depicting industrial, educational and agricultural subjects. Formerly such pictures taken in Western Canada had to be sent east to be developed. Premises, consisting of a two-storey building, 30 x 80 feet, on Manitoba Avenue, have been secured and about $30,000 invested in the business. The president of the company is Mr. P. J. Hamilton, who was formerly connected with the Pathescope Co. of Canada.

More Space Required

Sam'l. Osborn (Canada), Limited, are Erecting Building for Warehouse and Office Purposes

A new building, 120 x 80 feet, and costing approximately $40,000, is being erected at the works of Sam'l. Osborn (Canada), Limited, in Montreal. It will be utilized for the warehousing of steel bars, wire rope and the various products which this company have for sale. A small portion will be used as a demonstration plant for the heat treatment of steels, and a few machines will be installed for this work. Office accommodation will also be provided in the new structure.

A Million for Extensions

The National Farming Machinery, Limited, Goes in for Extensive Additions

About a million dollars will be spent on extension and new equipment by the National Farming Machinery, Limited, of Montmagny, P.Q., who have taken over the plant and business of the General Car and Machinery Works, Limited.. They will continue the manufacture of steam engines and boilers, saw-mill machinery, wood-working machinery, and good-roads machinery, and will operate steel, iron, brass and aluminum foundry, but in addition they will make agricultural implements and gasoline engines, and for this purpose are making the extension mentioned. A small rolling mill in connection with the steel foundry is also being erected. Some departments will be producing within a few weeks, others not until May or June. It is expected that from 1,200 to 1,500 men will be employed.

Planning General Expansion

Northumberland Paper & Electric Co., Limited, Have Large Building Program

The majority of the capital stock of the Canada Boxboard Co., with mills at Montreal and Frankford, Ont., has been acquired by the Northumberland Paper & Electric Co., Limited, Campbellford, Ont. Some form of organic union will probably be worked out, but no details have yet been arranged. In the meantime the properties of the Canada Boxboard Co. are being operated by the Northumberland Paper & Electric Co. very much along former lines. It is the company's intention to build a new plant in Toronto, work on which will be commenced early in the spring. They are now enlarging the plants at Campbellford and Frankford, as all three mills at Campbellford, Frankford and Montreal are very much behind their orders, and are unable to keep up to the present demand.

Rebuilding Box Factory

Factory at Bedford, N.S., Operated by Moir's Limited, to be Restored After Fire

Moir's Limited, biscuit and confectionery manufacturers, Halifax, whose sawmill and wood box factory at Bedford, N.S., was destroyed by fire on November 14, will rebuild the plant. The building was 160 x 60 feet, two storeys, with an "L" at one end to give sufficient length for sawing logs conveniently. The company's plans do not provide for any enlargement of capacity at present, as a building the size of the burnt one will give ample room to take care of requirements for some time to come.

The mill which was destroyed was comparatively new and equipped with modern machinery, it having been built in

1911. Since that time there have been improvements both in the class of machinery and in the method of handling lumber for box-making and it is the company's intention to put in the very latest and best machines available. It is quite likely that motor drives will be installed, as there is a water-power developed at the plant.

Needle Manufacturers Expand

The Torrington Co., Limited, Upper Bedford, P.Q., Acquire Additional Property

Announcement is made by the Torrington Company Limited, Upper Bedford, P.Q., manufacturers of knitting machine needles, that they have recently purchased the property of the Bedford Stove Company, adjoining their present location. This will be used to extend their factory, though they will not use the buildings now on the adjoining property, but will demolish them in the spring and erect a modern factory building. Nothing definite regarding the latter development has been decided yet, and no plans have been drawn up. At present the company are only manufacturing knitting machine needles, but they will put in other lines which they are manufacturing in the U.S., as soon as possible, including screws and rivets, electric vacuum cleaners, and other electric appliances.

Extend Toronto Plant

Canadian Fairbanks Morse Co., Limited, Making Additions to Their Toronto Factory

In a recent interview with Mr. H. J. Fuller, president of the Canadian Fairbanks, Morse Co., Limited, Mr. Fuller advised that the additions being made at Toronto factory are to meet new Canadian demands. Following the manufacture of munitions, the plant was quite exhausted, and it was necessary to put in almost entirely all new equipment to keep step with the anticipated growth of the Dominion.

"We have not the orders in sight, but we are anticipating that Canada will develop and its demands are going to be very large in the future," said Mr. Fuller. "We are enthusiastic over the future, and are willing to invest our money and if we cannot immediately use all of our facilities, the time is not far off when they will be required. The extensions are to take care of our large engine business. This is distributed through our branch houses in every part of the Dominion of Canada."

The New Pedlar Plant

Oshawa Industry Soon to be Housed in Complete New Factory Building

Work is now progressing on the erection of the new plant which the Pedlar People, Limited, of Oshawa, are erecting to take the place of their present inadequate premises. The site secured for the new building is on Simcoe Street between the C.P.R. and G.T.R. tracks. It will be 440 x 365 feet, of brick, steel and cement construction, 2 storeys in height, and so arranged as to facilitate the movement of the product continuously in one direction from raw material to the shipping department.

The Pedlar business was established in 1861 by the late George Henry Pedlar, assisted by his father, the late Henry Pedlar. Although new buildings were constructed from time to time until a large area was occupied, the success of the company has been so great as to completely outstrip all possibility of extension on the old site. Accordingly a complete new plant was decided upon and this will be occupied next year when completed.

Capacity Taxed to Utmost

Brantford Cordage Company, Limited, Preparing for Necessary Expansion

A new storage warehouse is at present under construction by the Brantford Cordage Company, Limited, manufacturers of Maple Leaf binder twine and cordage. It is 400 x 90 feet, of steel and brick construction, and provided with sectional fire-walls and full sprinkler equipment. The company



The Pedlar People, Limited's Big New Plant

This plant is now in course of erection at Oshawa and when completed will appear as in the above illustration. It will comprise a building 440 x 365 feet, two storeys in height, of brick, steel and cement construction

have also purchased an additional two and one-half acres of land adjoining their present mills, providing for further expansion in the near future. Present capacity is approximately 10,000 tons of binder twine per annum, and, notwithstanding the fact that they are in open competition with the world and without any tariff protection, their products have become so popular that present capacity is taxed to the utmost.

Monarch Knitting Expands

Additions Being Made to the Company's Factory at St. Catharines Now Nearly Complete

The Monarch Knitting Co., Limited, expect to have the addition to their factory at St. Catherines ready for operation by March 1st. The building itself is now complete, the sprinkler and heating systems are being installed and the machinery should be ready within the next few weeks. The extension is three storeys in height, of red brick construction, and contains about 30,000 sq. feet of floor space. The ground floor will be devoted to office purposes and recreation room for the girl employees. The first floor will contain the hosiery knitting machines and the second floor the sweater finishing department.

Knitting Mill Enlargement

Plant of Joseph Simpson Sons, Limited, Toronto, Receives Needed Extension

To relieve the pressure in their main plant on the Esplanade, Toronto, Joseph Simpson Sons, Limited, knit-goods manufacturers, are erecting a building on King Street East, which will be devoted entirely to carding and spinning. It will be 90 x 190 feet, three storeys high, of brick and mill construction. It is expected that it will be ready for operation by about July 1. When completed, from 50 to 75 new hands will be required.

Gear Company Will Move

The Hamilton Gear & Machine Co., Toronto, Plan Better Service

The Hamilton Gear and Machine Co., Toronto, now located at the corner of Concord and Van Horne Avenues, expect to remove their whole gear shop in the spring to the modern buildings at Nos. 62-84 Van Horne Avenue, formerly occupied as shell shop and tractor shop. The latter have a floor space about 2⅓ times greater than the present gear shop, and have the additional advantage of being all on one floor. The tractor shop is a fine building of concrete truss, saw-tooth roof construction, the only one of its class in Canada. The move will be greatly to the advantage of the company and their customers, who will receive improved service.

New Concentrating Mills Planned

Consolidated Mining & Smelting Co. of Canada, Limited, have Important Plans

Two exceedingly knotty problems have recently been worked out by the experts of the Consolidatd Mining & Smelting Co. of Canada, Limited, which will lead to the erection of two large concentrating mills in British Columbia. One of these problems concerned the concentrating of the low grade copper ores of the Rossland Mines. As a result of the success of experimental work the company will build a mill at Trail or Rosslands, treating 1,500 tons of ore a day and costing about $800,000. The product from this mill would be a copper concentrate which would be smelted in the existing copper blast furnaces. The second problem concerned the concentrating of the low grade silver lead zinc ores of the Sullivan Mine at Kimberley. A mill with a capacity of 2,000 tons of ore per day will be erected. The product will be lead and zinc concentrates, both of which will be shipped to the Trail smelter for treatment in the existing zinc plant and the existing lead smelting and refining plant. The market for the increased output of copper which the above developments will entail is already at hand in Canada. For the zinc and part of the lead export markets will have to be sought.

Broom Company Re-organized

St. Lawrence Broom & Brush Co., Montreal, Turning Out 700 doz. a Week

The St. Lawrence Broom & Brush Co., Montreal, have recently been re-organized. Mr. Rodrique Langlois has bought out the interest of one of the old partners. He has put enough capital into the business to allow of having all the buying done on a cash basis. Output will be about 700 dozen a week. Twenty men will be employed regularly and the company to raise output shortly to 800 dozen a week.

Locate in Brockville

Jireh Food Company Removing Their Industry From Maitland to Brockville

Reorganization of the business of the Jireh Food Co., whose milling plant was located in Maitland, Ont., has been effected and the company are now operating in Brockville. They have occupied a vacant building and have started the manufacture of their Jireh breakfast food, with a line of diabetic flour as a side line. The company will employ at the outset about fifteen hands, but expect to add to this number as the business expands. The principals of the company are Newell L. MacDowell and Merrill W. McDowell, both of whom have splendid overseas records to their credit.

More Warehouse Space

Dominion Road Machinery Co., Limited, will be Enabled to Increase Production

Ratepayers of Goderich voted favorably January 5 on a by-law exempting the Dominion Road Machinery Co., Limited, from taxes, other than school taxes, for ten years. The company have recently completed a warehouse, 40 x 100 feet, with travelling crane. This additional storage room will permit of their manufacturing during the winter months and having a larger stock of machines ready for shipment in the spring when municipalities demand the machines for spring work.

Will Erect Office Building

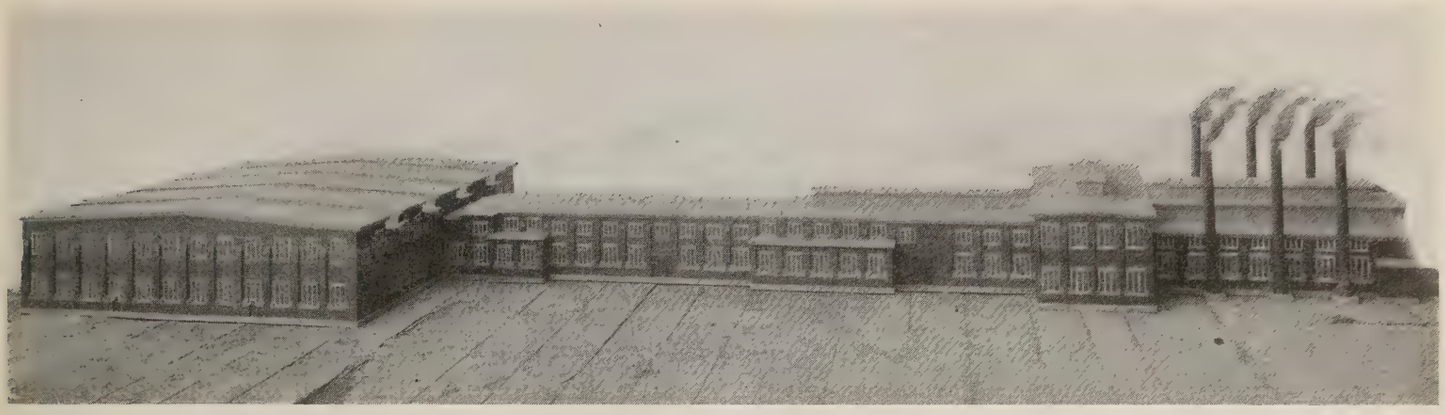
The Galt Knitting Co., Limited, Galt, have Plans for Welfare Work in New Building

The Galt Knitting Co., Limited, Galt, Ontario, manufacturers of underwear and knitted specialties, have plans ready for the erection of an office building adjoining their mill. This will be 50 x 75 feet, two storeys in height and of concrete construction. The lower floor will have commodious office room, while the upstairs will be devoted to rest room, cloak and dining rooms for female employees. The company expect to commence construction about April 1st, and hope to have everything completed by midsummer.

Several Extensions Planned

Dominion Canners, Limited, Have Quite a Programme of Building in Prospect

Several developments are either under way or being considered by the Dominion Canners, Limited. At Strathroy they are just completing a new factory and warehouse to replace a factory that was burned down. The buildings are



Dominion Iron & Steel Company's Ship Plate Mill

Model of the New Mill at Sydney which has been under erection for two years and which will probably start operations this month

three storeys high with basements, and are built of concrete and red pressed brick, costing in the neighborhood of $150,000. The company are contemplating some alterations at Dunnville, owing to the buildings there being somewhat old and dilapidated. There are some minor alterations at one or two other factories, principally in the way of extending warehouse capacity. They are also figuring on a new factory in Hamilton to replace the present jam factory, which is not large enough for requirements. The latter extension, however, has not been finally passed upon by the board.

Ship-Plate Mill Nearly Ready

Five Million Dollar Plant at Sydney Expected to Start Operating in February

It is expected that rolling operations at the new ship-plate mill of the Dominion Iron and Steel Co., at Sydney, N.S., will commence towards the end of February. The erection of the mill was started in June 1918. The rated capacity is 50,000 square feet of half-inch plate in 25 hours, equivalent to 500 tons daily or 12,000 tons per month. The mill is equipped to roll between 3-16in. to 2¼in. gauges in widths up to 98in. and lengths up to 80ft.

The mill has been the direct outcome of the Dominion Government's shipbuilding policy. The Government will guarantee a tonnage at a price sufficient to recoup the steel corporation for its outlay. The original price arranged was $4.15 per hundred pounds for standard ship-plates, plus extras for unusual shapes. Subsequently the price was revised to $3.65 per hundred pounds. The agreement, as revised, calls for 250,000 tons of plate delivered over a period of five years, with Government option to increase the tonnage to 375,000 tons, not less than 50,000 tons to be supplied annually.

Two Shawinigan Plants Join

Electric Furnace Plant and Iron Foundry to Operate at Shawinigan Factories, Limited

The electric furnace plant of Fraser Brace and Co., erected at Shawinigan Falls during the war, and the iron foundry of Normandin Bros. have been acquired by new interests, and on January 1 commenced operations as the Shawinigan Foundries, Limited. G. G. Macartney, who operated the electric furnace plant for Fraser Brace and Co., is president; W. G. Dauncey, vice-president and metallurgist; and Captain C. M. Hall, secretary-treasurer. It is intended to continue the manufacture of pig-iron in one electric furnace pending developments which may lead to the production of ferro-alloys and special steels in the near future. Extensions are contemplated so as to enable the iron foundry to cope with the demand for the ordinary run of castings in such an industrial centre. Arrangements have also been completed for carrying on brass foundry work on a large scale and to put a special grade of semi-steel casting upon the market.

Doubling Plant Capacity

Canadian Hart Accumulator Co., Limited, Are Making Addition to Their Plant at St. Johns

An addition which will considerably more than double the capacity of their factory at St. John's, P.Q., is just being completed by the Canadian Hart Accumulator Co., Limited. The original factory was of mill construction, one storey high. The addition is of the same type of construction and will nearly double the size of the plant. The company's product consists entirely of storage batteries for various classes of work including batteries for electric power stations, telephone stations, fire alarms, electric railways, farm lighting, electric train lighting and automobile starting and ignition.

Woodstock Developments

List of New Industries Which Have Started Operations During the Past Year

In reviewing the year's work at the annual meeting of the Woodstock Board of Trade at which he was unanimously re-elected to office, the president, E. A. Rea, gave the following information about industrial developments during 1919:—

The Woodstock Paper Box Company have located in the Stone property on Dundas Street, and are now employing a good number of hands. We expect to see this number largely increased during the present year. The operation of this plant has proved a decided advantage to local manufacturers using their products.

The Orange Products Company have taken over the Tobin Arms Factory and are now making marmalades. They are employing a good number of hands, and expect to increase this number.

The Woodstock Worsted Spinning Company started operation during the year and are now employing many hands.

The DeLong Hook and Eye Company have located a branch in the city on the property of Mr. A. Thompson on Finkle Street, and are now employing fifteen to twenty hands. If the labor is available they may add considerably to this plant, and decide to locate their Canadian headquarters in Woodstock.

Bean and Westlake, Limited, have built an addition to their already splendidly equipped plant.

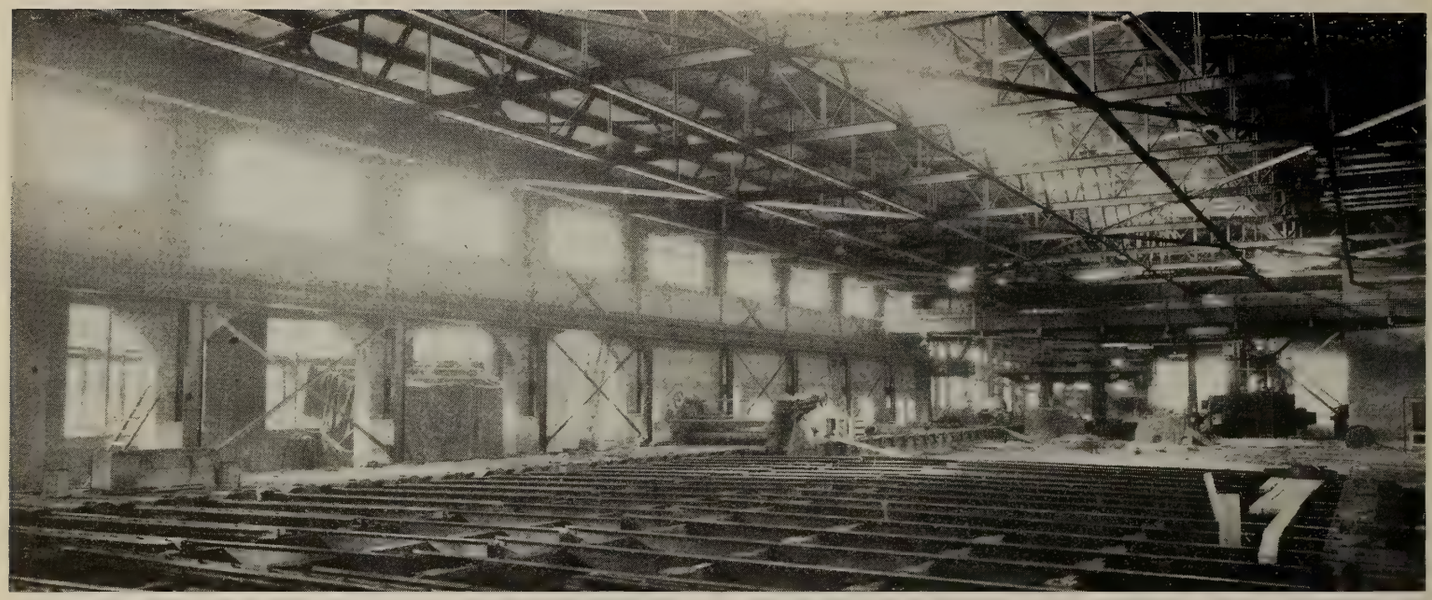
Hosiers, Limited, have built an addition to their factory and will shortly be employing many more hands.

The Harvey Knitting Company are adding an addition to their already large plant.

Hay & Co. have added an addition to their plant and have now a larger payroll than ever before in the history of the company.

The Linderman plant, which was closed for some time, is again in operation, and we expect to see this factory employ a large force of highly skilled, well paid mechanics.

On the recommendation of the Board of Trade the City Council submitted two industrial by-laws to the ratepayers, which were carried by overwhelming majorities, and with the result that we expect to see the Warren & Son Organ Co.,



Inside the Ship Plate Mill

Showing section of the hot bed looking north towards mill or motor pinions in the distance

Limited, occupy the Woodstock Lumber Co. building after making alterations to the factory which will make it thoroughly modern in every respect. They will employ many high paid mechanics.

The Brunswick Canadian Products Co., Limited, will start their large factory just as soon as weather conditions will permit. This will be one of the largest industries in the city, and will employ 200 or more men.

The electors will be called upon in a few days to vote on a by-law to assist the Karn Piano Co., Limited. I have every confidence in the men behind this proposition and hope to see this by-law get as large a vote as was accorded the other two in December last. I am sure it will be a great satisfaction to the citizens to see the Karn-Morris plant again humming with industry and employing more men than ever before.

Branch Plant in Dundas

J. R. Moodie & Sons, Hamilton, Have Leased Factory for Expansion

To assist in knitting and finishing their goods, J. R. Moodie and Son, Limited, Hamilton, who operate the Eagle Knitting Co., Limited and the Eagle Spinning Mills, Limited, in Hamilton, have established a small branch plant in Dundas. They started with fourteen hands, but expected to increase the number before very long.

Organized New Company

Dominion Bridge Co., Limited, Have Formed Subsidiary for Manufacture of Paper Mill Machinery

In the directors' report presented to the annual meeting of the Dominion Bridge Co., Limited, the following information was given relative to the company's activities in the manufacture of paper-making machinery:—

"The demand for paper-making machinery, alluded to in the last report, has outgrown the capacity of your shops at the Lachine Works, where its manufacture was being carried on, and your Company has purchased the land and shops of the St. Lawrence Bridge Company (built for the fabrication of the Quebec Bridge). A foundry equipped to turn out the special castings required for paper-making machinery and also for the heaviest class of general castings has been added. The tools and machines now used for making paper machinery are being transferred from your works to the new plant and the shops of that plant are generally being equipped for the manufacture of paper-making machinery, as well as for special foundry and machine shop products for which there is not now capacity in Canada.

"It was considered advisable to segregate the operations of the new plant from your Company and to incorporate a new Company under the name Dominion Engineering & Machinery Company, Limited, to take over the shops and equipment, the paper machinery business and other business for which these shops would be specially equipped, with an issued capital of $2,500,000.00. Your Company has acquired all the shares of the new Company.

"The purchase of the plant of the St. Lawrence Bridge Company, has resulted in the winding up of that Company and its assets are in process of distribution."

Build New Forging Department

General Forgings & Stampings, Limited, go in for Automobile Forgings and Stampings

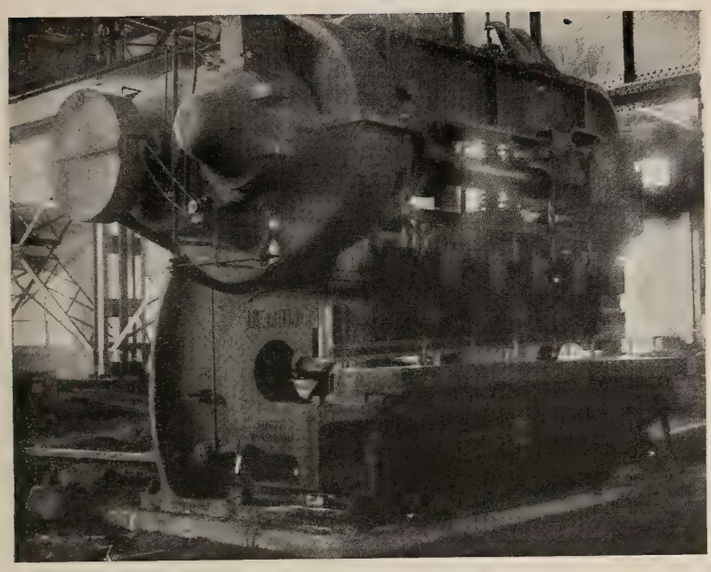
General Forgings & Stampings, Limited, which is the new name of the Canada Pole & Shaft Co., Limited, Merritton, are at present building a complete new forging department in addition to their present plant, and this will when completed be the most up-to-date forge shop that can be devised. The change of name has been found very necessary owing to the fact that for some time past the nature of the business has been changing from that of a pole and shaft and woodworking business to that of a forging and stamping business. For a considerable time the company have been operating only on automobile forgings and stampings and from now on will devote the entire plant to this product. All officers and connections are the same as before.

Company Changes Name

Galt Robe Company of Galt, Ontario, will be Known in Future as Stauffer-Dobbie, Limited

A change in the name of the Galt Rubber Co. took place at the first of the year. It will now be known as Stauffer-Dobbie, Limited. No change in ownership or management has been involved, the former partners and officers continuing to own and control the company. Mr. Geo. A. Dobbie is president; Mr. Jos. Stauffer, vice-president and treasurer; and Mr. James H. Bennett, managing director.

The company was established originally in 1903 for the purpose of manufacturing imitation buffalo robes. By degrees other lines were added, such as lap dusters, hammocks, furs and fur products. In 1912 the original mill was completely destroyed by fire, and the present three-storey buildings were erected. Further new lines were added, such as Turkish



156-inch slitting shear



108-inch cutting off shear

Two Mammoth Machines in the Ship Plate Mill at Sydney

towels, kimona cloths, art blankets, rugs and comfortables. As robes are no longer the chief product, it was deemed advisable to change the name of the company.

The company have been adding new machinery as fast as it has been possible for them to secure it, and they have at the present time twenty-five new looms coming from the United States; twenty of these will be put on Turkish towels, which will bring their equipment in this department up to seventy-five looms; the other five will be put on special kimona cloth, which is the company's latest line. They expect that within a year's time the capacity of their mill will show an increase of fifty per cent.

Will Double Capacity

Canadian Connecticut Cotton Mills, Limited, Will Make Large Addition to Their Sherbrooke Factory

Financial arrangements are now being made through the sale of $3,000,000 of 8 per cent cumulative preferred stock which will enable the Canadian Connecticut Cotton Mills, Limited, to erect an addition to their plant at Sherbrooke, Que., increasing its capacity by about one hundred per cent. The new addition will contain 400,000 sq. feet of floor space and will be built of brick and steel with modern lighting, heating, and plumbing. The new mill will be devoted to the manufacture of automobile tire fabrics, furnishing employment for about 900 operators. The company expect that it will be completed early next fall.

New Clothing Company

Climax Clothing Company, Limited, Will Start Operations in Arnprior During March

Messrs. J. T. Griffith and N. L. McNaughton, who were in business in Arnprior, Ontario, under the name of Griffith, McNaughton, Limited, and who sold out their business a few months ago to F. C. Huyck, of Albany, New York, have formed another company under the name of Climax Clothing Company, Limited, with a capital of $100,000. They have purchased a building in the town of Arnprior, 75 x 30 feet, three storeys and basement, and are installing new machinery for the manufacture of men's and boys' ready-made clothing, ladies' and children's stockings and men's half-hose, to be manufactured in cashmere and worsted yarns on automatic machines. The plant is being equipped for a production of $250,000 per annum. Mr. F. Rutherford is to be mill manager, and they will employ about eighty hands, starting about the middle of March. Mr. J. T. Griffith is the president of the company; Mr. N. L. McNaughton, vice-president and secretary-treasurer; and Mr. A. A. McNaughton, accountant.

Have Made Improvements

Wilson Canadian Company, Limited, Are Now Operating Their Packing Plant in Chatham, Ontario

The Wilson Company, the big Chicago packers and provisioners, who took over the plant of the Chatham Packing Company last fall, have already made considerable improvements to the plant and are now in a position to handle 750 hogs per day. This capacity can be increased as the supply of live stock in the Chatham district warrants. The company, which is operating in Canada under the name of Wilson Canadian Co., Limited, state that they are going to lend their support at all times to the stimulation of the growth of live stock so that they will be enabled to increase the capacity of their plant still further.

Stationery Manufacturers Enlarge

National Paper Goods, Limited, Hamilton, are Adding Approximately 12,000 square feet to Their Factory

An addition to the factory in Hamilton of the National Paper Goods, Limited, manufacturers of envelopes, tablets, papeteries, etc., is at present under erection. The addition is 52 x 70 feet in area, three storeys high, and will contain approximately 12,000 square feet. It is being erected for the purpose of increasing capacity in the company's stationery manufacturing department. It is anticipated that the building will be completed on or about April 1st, and from 25 to 35 additional employees will be taken on.

Turn to Page 122 for Additional Industrial Expansion Information

Freight Claims and Their Collection

The Shippers' Problems—Liability After Delivery of the Goods to the Carrier—Handling Claims for Customers—Attitude of the Sales Department on Question of Claims

By F. R. ALLWARD
Transportation Department, Canadian Manufacturers Association

Third Article

THERE is a widespread opinion among the shipping public that once the bill of lading is signed the carrier is liable for any loss or damage that may be discovered on delivery of the consignment at destination, but this is not true where the goods are hidden from view. For example: in the case of an L.C.L. shipment of shoes the receiving clerk at the freight sheds may sign for two cases, but he has no opportunity of verifying the contents, and the fact that several pairs are found short on unpacking by the consignee is not conclusive evidence that they were pilfered while the consignment was in the hands of the railway.

There are other instances where a concern may be handling certain classes of goods in the capacity of broker, and for the sake of convenience they are never opened but are shipped out in the original package to their customers. Under such circumstances it would be manifestly unfair to hold a railroad company responsible for loss or damage, especially where the record of handling produced by the Claims Department does not show any evidence of damage or opportunity for pilferage. The courts, our law makers, and other regulating bodies have recognized the fairness of this view and in the present standard bill of lading the Board of Railway Commissioners for Canada has approved the following provision:

> "Received subject to the classifications and tariffs in effect on the date of issue of this original bill of lading..... the goods described below in apparent good order, except as noted (*contents and condition of contents of packages unknown*).

If we are to recognize the fact that brokers and other middlemen cannot unpack all case goods they receive for distribution (private brand goods in particular), then it devolves upon the manufacturer to establish such a system of packing goods that his employees can consistently make a sworn statement as to the contents and condition of any one consignment, should the occasion arise. However, it is not always necessary to follow this procedure where the manufacturer can convince a representative of the Claims Department that under the system adopted in his factory or shipping room the opportunity for error in packing is negligible.

As regards the number and outward condition of the packages a clean bill of lading holds good in the case of L.C.L. shipments or carload shipments loaded on public team tracks (when a checker is provided), but the railway claim departments are not prepared to recognize this view where carload shipments are loaded by the manufacturer on a private siding.

Cars Loaded on Private Sidings

Some three years ago the Canadian railways notified shippers in all the large terminals that they would no longer continue to supply checkers for shipments loaded on private sidings, on the grounds that men were scarce and that the labor costs were not warranted by the results obtained. They offered as a substitute to provide the shipper with car door seals, to give clean bills of lading, and to investigate all claims for damage or shortage in the same manner as in the past. It has been found, however, that the railways are not prepared to carry out the agreement as regards claims for shortage, especially if they are able to produce what purports to be a clear seal record. Unfortunately the carriers cannot be compelled by law to supply a checker, and for his own protection as well as in the interests of his customers the shipper should establish a most careful method of checking and should keep a record of the same in such shape as will admit of its being accepted in a court as *bona fide* proof of the correctness of his invoice and bill of lading. At least a double check of the goods going into a car should be established and a careful record made of the seals placed on the side doors as well as the small windows on the end of the car.

The practice of giving the seal numbers of carload shipments to railroad employees should not be countenanced, unless the shipper is satisfied that the information will not prejudice in any way a claim for shortage of goods. Seals are placed on car doors to protect the contents from pilferage, and in taking a record of the numbers a car checker is supposed to examine the seal for the purpose of detecting any sign of tampering. It will be readily understood, therefore, that the shipper who permits his staff to furnish railway employees with the record of seals protecting his shipments is encouraging the checker to neglect his duties.

Ownership in the Goods

As far as a railroad company is concerned, a consignment of goods covered by a straight bill of lading becomes the property of the consignee immediately that document is signed by the carrier's agent (in the absence of notice to the contrary) and the said consignee is the only party who can legally collect reimbursement on a claim for damage or non-delivery. This is not, however, the controlling factor as between the shipper and his customer. The extent of a shipper's responsibility is covered entirely by the terms of sale and as there is more or less controversy on this question it would be well for the seller to have a clear understanding with his customer based on the following terminology:

(1) When the price quoted applies only at shipping point and the seller merely undertakes to load the goods on or in cars furnished by the railroad company serving the industry or most conveniently located to the industry without other designation as to routing, the proper term is:

> "F.O.B. (name point of origin)"—F.O.B. mills, works or factory; all have the same meaning and obligations.

(2) When the seller quotes a price including transportation charges to destination without assuming responsibility for the goods after obtaining a clean bill of lading at point of origin, the proper term is:

> "F.O.B. (name point of origin)"—"Freight prepaid to (name point of destination)."

(3) Where the seller wishes to quote a price from which the buyer may deduct the cost of transportation to a given

point without the seller assuming responsibility for the goods after obtaining a clean bill of lading at point of origin, the proper term is:

"F.O.B. (name point of origin)"—"Freight allowed to (name point)."

(4) The seller may desire to quote a price covering the transportation of the goods to destination, assuming responsibility for loss and for damage up to that point. In this case the proper term is:

"F.O.B. cars (name point of destination)."

(5) It may be that the goods on which a price is quoted covering the transportation of the goods to destination constitute less than the carload lot. In this case the proper term is:

"F.O.B. cars (name point of destination) L.C.L."

(6) Should the seller be located at a point where the railways provide regular cartage service, and he wishes to quote a price on a less-than-carload lot, freight and cartage charges collect, without assuming any responsibility after obtaining a clean bill of lading from the carriers' cartage agents, the proper term is:

"F.O.B. warehouse (name point of shipment) L.C.L."
—F.O.B. mill, works or factory all have the same meaning and obligations.

It has been stated above that the consignee is the only party who can legally recover reimbursement on a claim for damage or non-delivery when a shipment of goods is covered by a straight bill of lading, but it has always been the practice for Claim Departments to entertain a claim from either the shipper or the consignee providing the original bill of lading (or bond of indemnity, in lieu of lading) is surrendered with the claim Similarly in a court action the shipper, in order to prove his right to recovery, need only produce his sale records showing that he held ownership in the goods until delivery to the consignee.

Handling Claims for Customers

The small town general merchant, brokers and the smaller wholesale distributing houses undoubtedly have little experience or knowledge of the proper procedure to follow in obtaining reimbursement for loss and damage claims from the railways, and as a matter of service many manufacturing concerns long ago adopted the practice of handling claims for their customers. Competition in trade has made it necessary for other dealers to follow suit, with the result that the majority of merchants now look to the shipper to credit their account for any loss or damage that may be found to exist on delivery of the shipment.

The most regrettable feature is the lack of co-operation shown by many dealers in failing to furnish the shipper with the evidence required to substantiate a claim on the carrier. This is apparently due to the popular belief that the shipper is legally responsible for the safe delivery of the goods at destination; but even from an ethical standpoint a dealer cannot consistently expect to obtain reimbursement for loss or damage to his goods unless he is prepared to furnish evidence in support of his claim.

Many firms hesitate to insist on the consignee furnishing the required proof for fear of offending their customers, but instead attempt to cast the onus on the railways by filing claims for every alleged case of damage or shortage reported by the dealer. This is certainly not fair to the railways and is apt to cause the claims agent to look with suspicion on every claim filed by the said shipper.

If manufacturers desire to avoid considerable losses they should get away from the practice of assuming responsibility for the safe delivery of goods at destination. Undoubtedly it is good policy as a service feature for a concern to handle claims for customers, but if this policy is followed the shipper should have it distinctly understood that negotiations with the railway claims department will be conducted *only* in behalf of the consignee and not because he (the shipper) is legally responsible; and furthermore, that credit will not be allowed until settlement is obtained from the railroad company.

Attitude of Sales Department

The shipper's sales staff may at first take strong exception to adopting such a policy on the grounds that it will antagonise the trade. This need not be so if the task of educating customers in their duties and obliagtions as receivers of freight is assigned to a good correspondent well trained in the art of business diplomacy. He should be able to find ample material for his purpose in the second article published in "Industrial Canada" for January; and as regards carload shipments for small stations it might be well to point out that the railways do not always make the practice of supplying a checker for shipments unloaded on a public team track. In that event the consignee should be cautioned to take extreme care in checking out the contents and also to examine the seals on the doors to determine whether or not they have been tampered with en route.

How to Prevent Claims

This article completes the series on "Freight Claims and Their Collection" and will be followed by an article on 'How to Prevent Claims," dealing with them from a Shipper's Standpoint—such as Marking, Packing, etc.

Loss and Damage Express Claims

New Instructions Issued by American Railway Express Co. to its Claims Agents

In a circular recently issued by the National Industrial Traffic League, members are advised that the following new instructions have been issued by the American Railway Express Company to its claims agents regarding the settlement of loss and damage claims presented against the American Railway Express Company:—

"The following instructions will govern the settlement of loss and damage claims presented against the American Railway Express Company:

"(1) The date that written or verbal request is made by shipper, consignee, or other interested party, to trace a shipment, shall be considered as the date of claim, but verbal requests will be considered only when and as of the date substantiated by the Company's records made in writing.

"(2) Except as noted below, no claim for total or partial loss, or concealed damage, shall be paid which is not presented within four months after delivery of shipment, or, in the case of failure to deliver, then within four months after a reasonable time for delivery of shipment has elapsed.

Exceptions:

"(*a*) Where claim is made on account of loss of a C.O.D. shipment, the claimant shall be allowed forty days, in addition to the four months in which to file his claim. This based on the fact that we do not accept tracers for C.O.D. shipments within forty days of date of shipments unless shipper produces evidence that shipment has been delivered and paid for. When not presented within this extended period, decline.

"(*b*) Where C.O.D. shipment has been delivered and money collected, or where shipment is receipted for as C.O.D. and delivered without collecting C.O.D., claim should be paid regardless of whether or not presented within four months from date of delivery.

"(3) On account of difficulty in determining where or how delay or damage occurred, we will take the broader view and interpret the four months' clause as not applying to claims for delay, or claims where the damage to the shipment is apparent.

"(4) When, at the expiration of two years and one day after delivery of shipment, or in the case of non-delivery,

two years and one day after a reasonable time for delivery, claim has not been adjusted or declined in writing, and suit has not been commenced, claims shall be referred by Claim Agents to Superintendents of Claims, to be reviewed by them. Such claims will be paid only when, in the judgment of Superintendents of Claims, the Express Company was responsible for delay in settlement."

S.S. Service to Brazil

Monthly Sailings Started in January by the Canadian Government Merchant Marine

Canadian National Railways export and import department advise that they have inaugurated a service from Canadian Atlantic ports to Pernambuco, Rio de Janeiro and Santos on the East coast of Brazil which will be served by the same steamer as is now running to Buenos Ayres. The first sailing from Halifax was about January 25th, and the monthly service will be continued thereafter when cargoes offer.

There would appear to be a great desire on the part of the people of Brazil to do business with Canadians, and it is hoped that all manufacturers who can take advantage of this service will support it to the utmost.

On the January 25th sailing, there was a quantity of codfish, malt and newsprint paper. It is hoped that a larger trade may be developed in other manufactured articles.

Express Co. Liability

The Proposal to Modify the $50 Limit in Case of Loss or Damage

The provision in the express receipt limiting the liability of the company to $50 in case of loss or damage has been under consideration for some time, the proposal being to amend this clause to provide that in the case of shipments having an actual weight in excess of 100 lbs., the liability will be limited to 50 cents per lb. In other words, on a shipment of 200 lbs. the claimant would be able to recover $100, but under the present arrangement he can obtain only $50. Negotiations have been carried on with the express companies, but the Express Traffic Association are not prepared to make any concessions.

After careful investigation and consideration it was felt that if the case was taken to the Board of Railway Commissioners it might result in a higher graduated table for values over $50.00. Furthermore, the present basis for express rates authorized by the Board has been predicted on the $50.00 valuation, and any attempt to secure a modification of this provision might have a tendency to disturb the present scale. However, in view of the fact that some sections of trade, such as the Packing Industry, are urging a modification of the present rule, the Transportation Committee will deal further with the matter as soon as actual figures can be obtained to show whether or not any saving would be effected by the proposed amendment.

Ruling Issued

Interstate Commerce Commission Allows Some Latitude in Time for Fyling Freight Claims

In an article published in the January issue of "INDUSTRIAL CANADA" under the caption of "Freight Claims and Their Collection," it was stated that suits for loss, damage or delay to shipments originating in the United States could be instituted *only* within two years and one day after delivery of the property, or in case of failure to make delivery then within two years and one day after reasonable time for delivery has elapsed.

The Interstate Commerce Commission have now issued their ruling in connection with the test case referred to, in which they say that the limitation in the bill of lading should not be construed as prohibiting the payment after two years and one day of meritorious claims if seasonably filed.

It is understood that the General Counsel of the United States Railroad Administration is preparing a circular withdrawing his instructions to the carriers of July 22nd, 1919, to withhold payment of claims of this nature pending the Commission's decision in the "Decker" case and now authorizing the railroads to pay just claims for loss or damage, even though the statutory period has expired. It is anticipated that these instructions will be issued shortly.

New Live Stock Contract

Board of Railway Commissioners Will Take Up Matter at Hearing This Month

A hearing will be held in Ottawa on Tuesday, February 10th, 1920, for the purpose of taking evidence on the proposed new Live Stock Contract and all other matters affecting transportation of live stock by rail in regard to which the Board of Railway Commissioners has jurisdiction. This question has been under consideration since 1904.

At a later date the Association and interested shippers took the initiative in urging a reasonable contract and had practically come to an agreement with the railways, on some points, when someone suggested to the Board that no action be taken until the matter was decided in the United States. However, there has been so much delay in arriving at a decision in the United States that urgent representations were made to the Chief Commissioner for an immediate decision in so far as Canada is concerned, and as a result the Board has now set the matter down for a hearing.

Increased Freight Rates

Considerable Increases Likely to be Asked for by the Railway Companies

Reporting to the Executive Council at its January meeting, the Transportation Committee made the following statement on the subject of increased freight rates:

"Judging from current events there is every indication that an application will be made for an increase in freight rates, prior to the return of the railways to private ownership in the United States on March 1st, 1920.

"As the operating ratio is now 95%, it is apparent that an increase of approximately 25% must be granted. In Canada, in so far as the Canadian National Railways are concerned, the operating ratio is considerably higher and, if that line is to be put on a proper footing, it may mean an increase of 50%. However, whatever happens in the United States will in all probability be reflected in Canada.

"The attention of your Committee was directed to an editorial which recently appeared in one of the leading newspapers of Canada, contending that the C.P.R. was not entitled to any additional revenue and suggesting that if it was found expedient to allow a further increase in rates the C.P.R. should be required to pay the amount of the said increase into the Dominion Treasury. The members agreed unanimously that no attempt should be made to interfere with the C.P.R., which would have the effect of curtailing the efficient freight service now provided by that Company, and accordingly the following motion was adopted: "That this Committee go on record as being in favor of the C.P.R. receiving the same rates and the same conditions as those allowed to the Government Railways in every shape and form."

"There is a widespread feeling in Canada that any increase in rates granted to railways should not apply on export

An Endorsement of Group Life Insurance

BY THE COMMITTEE ON

Industrial Betterment, Health and Safety

OF THE

National Association of Manufacturers

Authorization for the transaction of Group Life Insurance throughout the Dominion has been recently granted to Canadian and United States Insurance Companies by the Superintendent of Insurance for Canada.

The Equitable Life Assurance Society

of the United States

the pioneer company in the development of this modern welfare measure for employees, now offers its services to Canadian firms and corporations.

How successful this form of insurance has proven to all branches of business is shown in the report of the Committee on Industrial Betterment, Health and Safety of the National Association of Manufacturers which includes many endorsements from representative patrons. A copy of this pamphlet will be sent on request by the Equitable's Group Insurance Department. Here is a particularly pertinent paragraph:

> "Taking it as a whole, your Committee believes that to those having in mind the improvement of conditions of those in their employ, so far as the same may be justified by a modest expenditure, will probably find in Group Life Insurance the medium which dollar for dollar of such expenditure will prove most beneficial to employer and employe alike, and therefore to the general improvement of industrial conditions. As it has been aptly put by someone:
>
> "Could an addition of one to one and one-half per cent. of the payroll be more economically and satisfactorily expended in promotion of the security, loyalty and content of the workers than when invested in sound life insurance protection for employes?"

THE EQUITABLE
LIFE ASSURANCE SOCIETY OF THE UNITED STATES

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business. In this connection it has been pointed out that export rates to Canadian ports are usually kept on a parity with those applying via American ports. Canada must be kept in the position to permit exporters of this country to compete with the United States."

Railway Materials for Brazil

Large Quantities Required by the State-Owned Railroad System of the Republic

Information has been received through the Department of Trade and Commerce, that the State-owned railroad of Brazil, known as "A Estrada de Ferro de Carlos Barbosa a Alfredo Chanes," requires quantities of material of various kinds. Below is a statement of materials required. This has been forwarded by the Chief Engineer of the railway, and Canadian manufacturers who are interested should get in touch with Major G. B. Johnson, Canadian Government Trade Commissioner, Cairo (P.O. Box 2164), Rio De Janeiro, Brazil.

Railway Construction Machinery, Locomotives, etc.:
- Excavating machinery (steam or electric shovels).
- Rock drills (compressed air or electric).
- Picks, shovels, bars, etc.
- Rails and dump cars for removing earth and rock.
- Cableways and buckets for removing earth and rock.
- Explosives: Cement.
- Steel rails, weighing 28 to 40 kilos per meter, with all accessories.
- Bridge-steel girders for spans from 20 to 200 meters.
- Locomotives, passenger and freight, gauge 1 meter, minimum radius on curves 150 meters, heaviest climb 18 millimeters per meter, and track of rails weighing 30 kilos per meter.
- Freight cars, boxes and flats.
- Trucks, complete for one-meter gauge.
- Passenger coaches, one-meter gauge.
- Railway automobiles, one-meter gauge, for line service.
- Tools for track-laying and maintenance of way.
- Rail saws and drills.
- Turntables, switches.
- Telegraphic and telephonic equipment, including line material.

Machinery for Electric Power, no belt transmission:
- Machine tools for railroad shops, lathes, drills, planers, machine hammers, etc., for cutting and drilling iron and steel.

Compressed air installation for painting and riveting
Grindstones, ventilators
Woodworking machinery.
Furnaces for melting iron and other materials.
Cranes and winches for handling heavy pieces in the shops.
Hand tools, for stonemasons, blacksmiths, carpenters and electricians.
Clocks, time-keeping and night-watchmen's.
Pumps, compression and centrifugal (for electric or steam power).
Steam engines—stationary.
Gas engines (gasoline and kerosene).
Electric motors, dynamos and accumulators.
Surveying instruments, transits, levels, etc.
Drafting materials, drawing instruments, paper, inks, tables, etc.
Blue-printing equipment, complete.
Stone-crushing machinery.
Railroad scales (car and locomotive).

And all material for the construction, maintenance, and operation of a railroad.

Steamship Sailings

Proposed Sailings from West St. John, St. John, Halifax and Portland in the Near Future

West St. John to Liverpool.

*Canadian Voyageur..Can. Gov't Mer. Marine, Ltd..Ab't Feb. 10
Metagama .....C.P.O.S. Lines .....Ab't Feb. 12
*Sails from St. John.

West St. John to Antwerp.

War Beryl.....C.P.O.S. Furness Line (C.P.O.S.).Ab't Feb. 14
Scotian .....C.P.O.S. Furness Lines (C.P.O.S.)Ab't Feb. 16

West St. John to Avonmouth Dock (Bristol).

Sardinian.....C.P.O.S. Lines .....Ab't Feb. 28

West St. John to Manchester.

Manchester Corporation.Manchester Liners .....Ab't Feb. 10

West St. John to Havre (France).

Bilbster.....Can. Trans. Atlantic Line.....Ab't Feb. 8
Mississippi.....Can. Trans. Atlantic Line.....Ab't Feb. 18

West St. John to Bordeaux (France)

Wisley.....Can. Trans. Atlantic Line.....Ab't Feb. 24

West St. John to Australasian Ports—Melbourne, Sydney, Brisbane, Auckland, Wellington and Dunedin.

Durham.....New Zealand S.S. Company...Ab't Mar. 12

Halifax to Liverpool.

Canadian Seigneur...Can. Gov. Mer. Marine, Ltd..Ab't Feb. 23

Halifax and Glasgow.

Canadian Aviator....Can. Gov. Mer. Marine, Ltd..Ab't Feb. 17

Halifax to Barbados, Trinidad and Demerara.

Canadian Signaller...Can. Gov. Mer. Marine, Ltd..Ab't Feb. 19

Halifax to Santiago (Cuba) and Kingston (Jamaica).

Watuka .....Pickford & Black .....Ab't Feb. 10

Portland to Liverpool.

Dominion.....White Star-Dominion Line....Ab't Feb. 20
Canada.....White Star-Dominion Line....Ab't Feb. 28

Portland to London.

Willaston.....Cunard Line .....Ab't Feb. 15
Venusia.....Anchor-Donaldson Line .....Ab't Feb. 28

Portland to Glasgow.

Cabotia .....Anchor-Donaldson Line .....Ab't Feb. 18

Portland to Avonmouth.

Cornishman.....Dominion Line .....Ab't Feb. 23

Portland to Leith.

Cairngowan.....Thomson Line .....Ab't Feb. 15

West St. John to Manchester via Halifax.

Manchester Corporation.Manchester Liners .....Ab't Feb. 10

West St. John to Avonmouth.

Verentia.....Cunard Line .....Ab't Feb. 25

West St. John to Belfast.

Fanad Head.....Head Line .....Ab't Feb. 8

St. John to London.

Canadian Trooper...Can. Govt. Mer. Marine, Ltd....Ab't Feb. 28

St. John to Kingston (Jamaica) and Havana (Cuba).

Canadian Warrior...Can. Govt. Mer. Marine, Ltd....Ab't Feb. 11
Thos. J. Drummond..Can. Govt. Mer. Marine, Ltd....Ab't Feb. 25

St. John to Havana (Cuba).

Canadian Adventurer.Can. Govt. Mer. Marine, Ltd..Ab't Feb. 11
Canadian Sower.....Can. Govt. Mer. Marine, Ltd..Ab't Feb. 18

Halifax to Rio De Janeiro, Santos, Brazil and Buenos Aires, Argentine.

Canadian Pioneer..Can. Govt. Mer. Marine, Ltd....Ab't Feb. 20

Halifax to Havana, Cuba.

Canadian Trader....Can. Govt. Mer. Marine, Ltd....Ab't Feb. 14
Canadian Sailor....Can. Govt. Mer. Marine, Ltd....Ab't Feb. 21

B.C. Car Shortage

Serious Situation Developed in December, but was Relieved as Result of Negotiations

During the latter part of December a serious car shortage developed in British Columbia, which completely tied up the export of lumber from Canada to the United States. Immediately on being apprised of the situation a direct appeal was made to Sir Henry Drayton, Finance Minister, and to the Board of Railway Commissioners. This business amounted to approximately ten millions per month, but on account of the large number of Canadian cars in the United States the Canadian lines showed reluctance to allowing their equipment to be used for this traffic. The American Coast lines would not allow their cars to come into Canada for this lumber; but finally, as a result of negotiations, the C.P.R. agreed to provide sufficient equipment to handle the traffic.

Howard Smith Paper Mills

Company Issues Preferred Stock to Finance Purchase of Toronto Paper Manufacturing Company

A public offering of the unsold portions of $1,500,000 eight per cent. cumulative participating preferred stock of Howard Smith Paper Mills, Limited, has recently been made. Of the total $475,000 is to be exchanged for a like amount of preferred stock now outstanding, and the balance will be used to acquire the entire capital stock of the Toronto Paper Mfg. Co., Limited. The new stock is offered at 103, yielding over 7¾ per cent.



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West Indian Trade

The Bank of Montreal having acquired an interest in the

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an old-established English bank, now owned and controlled by

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offers unexcelled facilities for the transaction of business with the West Indies, British Guiana, South America and Africa

Any Branch of the BANK OF MONTREAL or the Foreign Department at Montreal will be glad to answer all enquiries

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PAPER FOR CATALOGUES

Mills at
Thorold, Georgetown and Mille Roches, Ontario
HEAD OFFICE - TORONTO, CANADA

Cellboard is the proper name for what is commonly called corrugated board

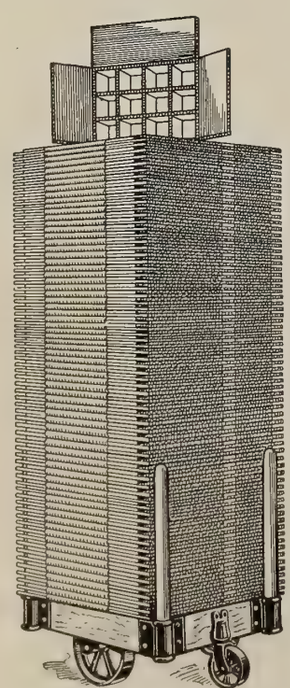
Established 1909

ADAMS CELLBOARD COMPANY

MANUFACTURERS OF FIRST QUALITY
SHIPPING CONTAINERS AND CORRUGATED PAPER

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OUR SPECIALTY
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We desire to have your samples or measurements to quote on when you are considering placing an order

5 TO 21 DEFRIES STREET
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Our New Address

WE take pleasure in announcing that our business has increased to such an extent that we are securing more adequate quarters.

After February 10th, 1920

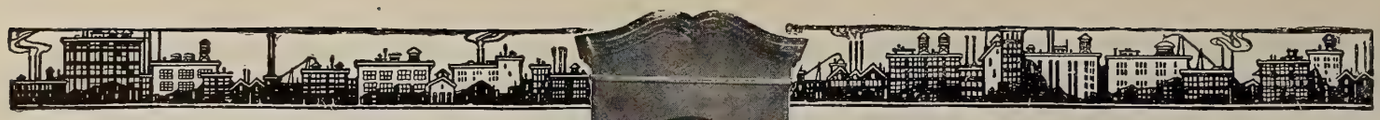
our Head Office will occupy the whole of the first floor in the Bank of Nova Scotia Chambers at the intersection of Queen, King, and River Streets, near Don Station, Toronto.

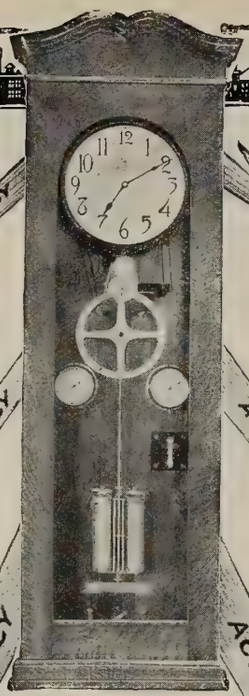
PHONES MAIN 102 and 104

John V. Gray Construction Co. Limited

GENERAL CONTRACTORS

WINDSOR TORONTO





ACCURACY

ACCURACY

ACCURACY

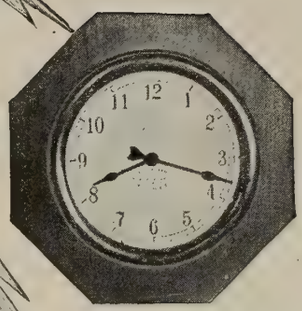
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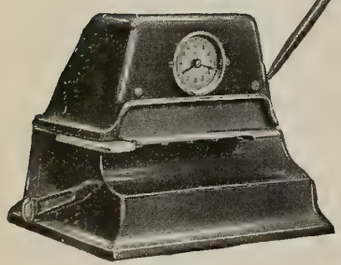


International
Secondary Clock

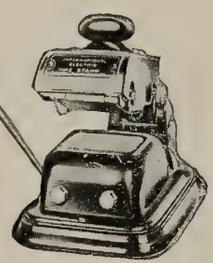


International
Secondary Clock

International
Self Winding
Master Clock



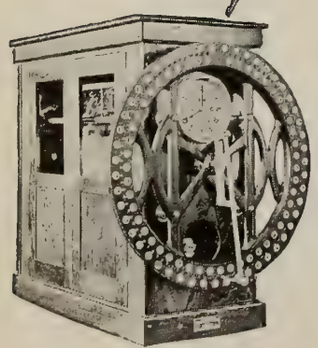
International
Cost Recorder



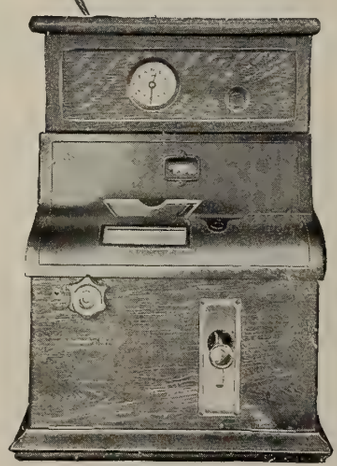
International
Electric Time Stamp

INTERNATIONAL ELECTRIC TIME SYSTEMS

Master Clocks - Secondary Clocks - Cost Recorders - Card Time Recorders - Dial Recorders - Time Stamps and Program Devices



International Dial Recorder.
Controlled by Master
Clock



International Electric-Drive
Card Recorder. Controlled by
Master Clock

For Businesses of all Kinds and all Sizes — Backed by Thirty-three Years' Successful Manufacturing of Time and Cost Computing Instruments

Write for Details

INTERNATIONAL BUSINESS MACHINES CO., LIMITED

TIME RECORDER DIVISION

FRANK E. MUTTON, Vice-President and General Manager

Head Office and Factory,
Campbell Ave., Toronto, Ont.

Also at Montreal
Winnipeg, Vancouver

(Also makers of Hollerith Electric Tabulators and Dayton Computing Scales)

- - - - that Time Recorder system you are thinking of buying

Is it "fully automatic"? To be so it must have the three features mentioned below. If it lacks any one of these it is NOT fully automatic

A Time Recorder System that is not "fully automatic" does not eliminate entirely the human element in its operation. Getting rid of this "human element" is a great economy and safeguard because then there is nothing for an employee to regulate or adjust. Nothing to remember---or forget. Any operation in a Time Recorder System that can be forgotten is a WEAKNESS and no system is stronger than its weakest link.

The 3 Automatic Features

found together only in Internationals are

1st.---The shifting of the Time Card (or Sheet) from day to day---is done automatically.

2nd.---The shifting of the Time Card (or Sheet) for the proper placing of the "In" and "Out" Records---is done automatically.

3rd.---The printing of all "Late" or "Early Leaving" recordings in Red or in a separate column --- is done automatically.

We make these fully automatic Recorders either self contained or electrically driven with control by a master clock.

Now the leaving out of any one of these three automatic features considerably reduces the cost and calls for a machine of a different build. We supply them of very high quality, and they will meet in price and surpass in merit, any other machine in the world.

On our Electric Recorders you can have either the "Late" records printed in a line below the regular record, or you can have it printed in Red. The latter is of course far superior and is selected by 95 per cent. of the Electric Recorder buyers.

Internationals give you COMPLETE service---or less if you want it. They are made in Canada and they stand apart for design, durability, finish and exclusive features.

Let us send you our descriptive matter

International Business Machines Co., Limited

ROYCE AND CAMPBELL AVENUES, TORONTO

FRANK E. MUTTON
Vice-Pres. and Gen. Man.

OFFICES IN ALL PRINCIPAL CITIES

(Also makers of Dayton Scales and Hollerith Electric Tabulators)

Control of Profiteering in Great Britain

(*Continued from page* 64)

cutlery, brushes, and domestic utensils of all kinds; pottery, wood-working and furnishing, building materials, and chemicals.

The duties of the Central Committee are exercised through three standing committees.

The Investigation of Prices Committee, which investigates costs, prices, and profit at all stages;

The Complaints Committee, which receives, hears, and determines complaints against wholesale traders;

And the Committee on Trusts, which obtains from all available sources information about trusts and trade combinations, having for their object the control of prices, output, or transport rates.

Among the members of the Central Committee are: Sir Thomas Allen, Parliamentary Committee, Co-operative Congress, and deputy chairman, Consumers' Council; Sir William Beveridge, director, London School of Economics; G. H. Stuart Bunning, president, Trades Union Congress, 1919; Viscount Burnham, publisher of the London *Daily Telegraph;* Baillie P. Gillespie, M.P., General Federation of Trade Unions; Stanley Machin, chairman, London Chamber of Commerce; J. J. Mallon, secretary, Anti-Swearing League; T. Robinson, M.P., National Confederation of Employers' Organizations; Sir Wilfred Stokes, Federation of British Industries; J. H. Thomas, M.P., president, the National Union of Railwaymen; Ben Turner, General Union of Textile Workers; and Sidney Webb.

There are six women on the committee.

One feels that so far the Profiteering Act in Great Britain has been a good deal of a squib—a false alarm. The public, which cried out loudly and bitterly against alleged or suspected profiteering, has not been at all enthusiastic in hauling alleged profiteers to trial. Also, what is profiteering? Where does profiteering begin?

The Profiteering Act has a life of six months. In the months that remain there is not likely to be any more zeal on the part of the public to take advantage of the provisions of the Act than it has shown in the weeks that have elapsed since August 19. That there has been profiteering none is likely to deny, but in the main the present high prices for most things in common use are not high because of profiteering, but of other causes.

File Manufacturers Had Good Year

By E. M. THURBER

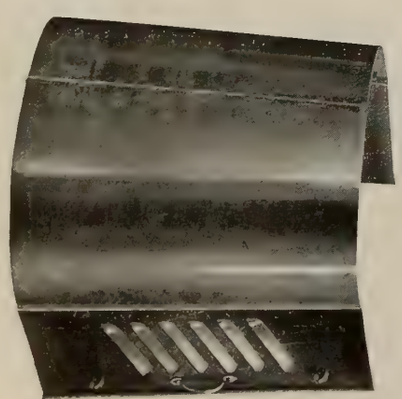
Manager Nicholson File Company, Port Hope

In 1917 we made large additions to our plant, but on account of labor shortage did not get any benefit from this added equipment until the end of 1918. During the year 1919 we were able to get all the men we required, many of them old hands who had returned from France. The efficiency of our force steadily improved, our output increased, and the percentage of spoilt work decreased and our output was the largest we ever had.

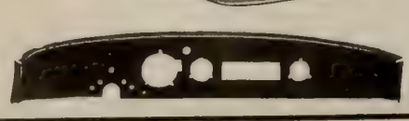
During the first half of last year new business was small. we were operating our plant largely on old orders and getting our stock in shape. During the last half of the year business has been much better than we anticipated and we have had no difficulty in disposing of our entire output. Prices have remained constant during the year.

We have had no trouble getting the raw material we required, and while transportation has been slow, it has not inconvenienced us. This is largely a question of anticipating requirements and keeping a surplus stock of material on hand. The outlook for the Spring appears good, but conditions are too uncertain to make any predictions.

STEEL STAMPINGS







NEARLY 60 years of specialized experience and a plant that has few equals on the continent for equipment, assure you exceptionally good service when you place your order with us for Steel Stampings and deep-drawn work. We can handle Stampings of every size and are particularly well-known for automobile body stampings and tank work of all descriptions.

Are you using castings or forgings when perhaps a stamping would not only be more economical but would serve better ?

Our engineering department is at your service to help you determine where you can replace forgings or castings with steel stampings.

We Invite Your Enquiry

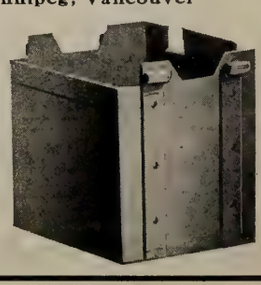
THE PEDLAR PEOPLE LIMITED

(Established 1861)

Executive Offices and Factories : OSHAWA, ONT.

Branches : Montreal, Quebec, Ottawa, Toronto, Winnipeg, Vancouver





Dominion Copper Products Company, Limited

Manufacturers of

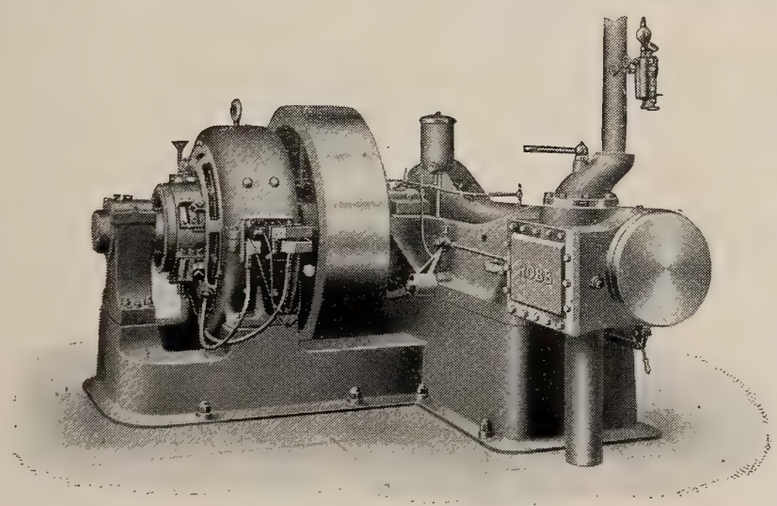
COPPER AND BRASS

Seamless Tubes, Sheets and Strips in all Commercial Sizes

Office and Works: LACHINE, Que., Canada

P.O. Address: MONTREAL, Que. Cable Address: "Domcopper"

ROBB POWER PLANTS



Engines

Corliss, slide valve, vertical, horizontal, simple and compound.

Boilers

Water tube, return tubular, improved Scotch marine and portable.

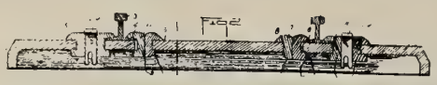
Robb Engineering Works, Limited, Amherst, N.S.

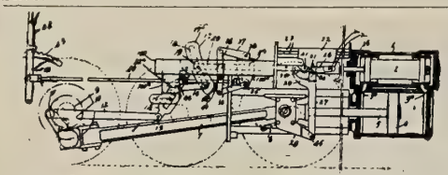
MONTREAL OFFICE
Phone Westmount 6800

TORONTO OFFICE
20 Victoria Street

PATENTS FOR SALE

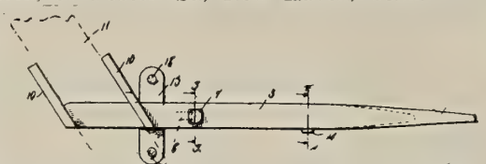
METALLIC RAILROAD TIE, the only absolutely satisfactory device of this nature, being provided with an improved means for rigidly connecting the rails to the tie, nothing to work loose, strong, durable, a real labour saver. The inventor, C. R. Ruggaber, Box 231, Augusta Road, Savannah, Ga., offers patent rights in the Dominion for sale.



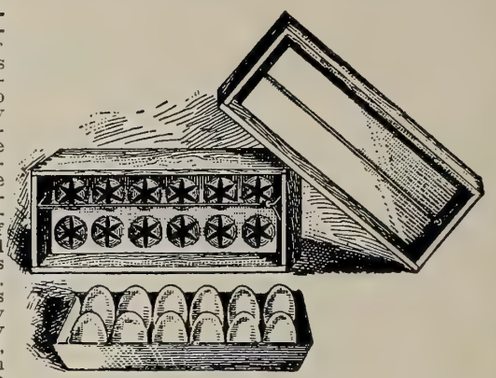


VALVE MOTION FOR FLUID PRESSURE ENGINES.—The object of this invention is to control the valve movement so as to allot a greatly increased portion of the cycle of movement to each open position of the valve and to cause a correspondingly smaller portion of the cycle of movement to be occupied by the opening and closing movement, with a corresponding gain in the time allowed in the expansion and lessening of the compression time in the exhaust end of the cylinder, and to provide means for a constant angle of advance with respect to the main crank of the driving axle. Patent rights for sale by W. S. Clarkson, 90 Foster St., New Haven, Conn.

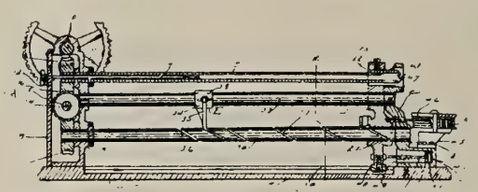
DOOR AND SASH VISE.—A very simple and inexpensive device, thoroughly efficient in use, and one which may be manufactured and placed on the market at a very small cost with reasonable profit. The device is one which has been thoroughly tested and is beyond all question of experiment. Patent rights for sale by C. F. Shilling, P.O. Box 306, Avoca, Ia.



EGG SHIPPING CONTAINER for carrying eggs in such a manner as to thoroughly pack and protect same against breakage, and at the same time permit the transporting of same by parcel post, express and the like. The device is one which may be cheaply manufactured, is simple in construction and absolutely efficient in use. Patent rights for sale by F. Koht, 1903 Cottage Grove Ave., Des Moines, Ia.



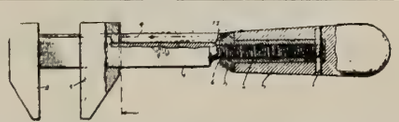
Patented April 11, 1916. U. S. No. 71296



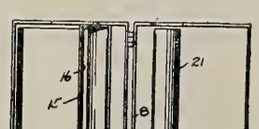
FENCE-STAY-WIRE-FORMING MACHINE whereby a fence stay may be formed from a single piece of spring or other wire in a simple and rapid manner. The finished article is of an even, neat appearance, as well as being strong and durable. For further particulars apply to the inventor, J. F. Tillman, 1419½-4th Ave., Seattle, Wash., who offers patent rights for sale.

WINDOW LOCK, specially adapted for use in connection with the sash of weightless windows, greatly improving the construction of devices of this character and which can be readily thrown into or out of operation as desired. This device may be cheaply manufactured and is one which, in view of its simplicity and reliability, should find a very ready market. Patent rights for sale by P. Zielinski, Armstrong Creek, Wis.



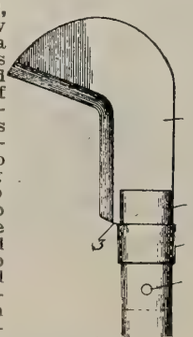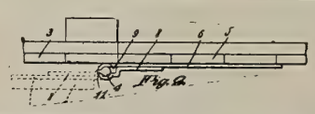


MONKEY WRENCH, an improved construction having a shank and jaw member fixed on one of the shank ends and a movable jaw slidingly disposed on the shank, and a jamming member extending over the length of the shank and being embedded therein, and a means at the handle of the wrench for lifting the rear end of the jamming member to lock the movable jaw on the shank at the desired place. The device is without doubt a great improvement over any of the present devices now on the market, and in view of its simplicity and the cheapness with which it may be manufactured, should prove an interesting proposition. Patent rights for sale by Al. L. Stebor, Jr., 914 George St., Plainfield, N.J.



CIGARETTE ROLLER, a simple and ingenious device having a paper and tobacco magazine, a hollow roller for receiving the tobacco from the magazine, a paper guide partially surrounding the hollow roller, and a cut-off for the flow of tobacco, and a pivoted platform supporting the paper for leading fresh papers to the paper guide. This device is one of the most efficient of its kind that has ever been brought to the attention of the public. Patent rights for sale by R. S. Jenkins, P. O. Box 651, Fort Myers, Fla.

BUSH KNIFE, this device is now being used by a great many farmers and others engaged in the clearing of land and wherever the knife is known, the workmen will use no other. Its cutting qualities are so much superior to any other that the inventor has found it impossible to supply the demand and is therefore desirous of getting in touch with a reliable manufacturer with a view of disposing of his interests or arranging for the manufacture of his device in the Dominion. For further particulars apply to Q. Sawyer, Creswell, N.C., who offers patent rights for sale.

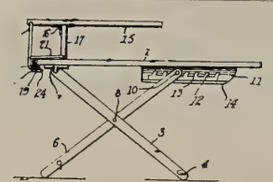




GATE HINGE, a strong, durable device, simple in construction, and efficient in use, easily applied and having few parts, so that it may be cheaply manufactured and placed on the market at a price that will compete with any of the present devices of this character. Patent rights for sale by E. C. Crook, Lewistown, Mont.

STOVE PIPE, having for its object to permit a length of stovepipe being easily cleaned without taking it down or putting out the fire in the stove. Also, by inserting one in the chimney flue, the same can be easily cleaned at any time without removing the pipe. The device is one which may be cheaply manufactured and placed on the market at a small cost with reasonable profit. Patent rights for sale by E. P. Pearson, Maple Brae Farm, Carp, Ont.

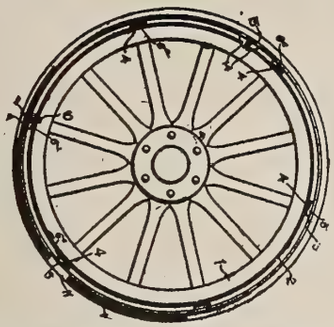




IRONING BOARD that not only fills all requirements, but actually helps make ironing easy. There are no legs to interfere with the ironing of skirts or any other articles. The device may be adapted without necessity of unfastening any thumb-screws or bolts. When folded it takes up smaller space than any other folding ironing board. Patent rights for sale by M. P. Nichols, Leetonia, Ohio.

HAROLD C. SHIPMAN & CO., Patent Attorneys, Ottawa, Canada

PATENTS FOR SALE



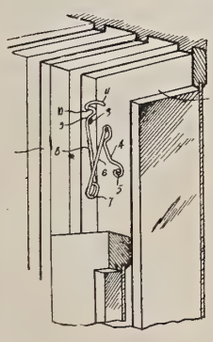
AUTOMOBILE WHEEL RIMS, comprising certain new and useful improvements in automobile wheel rims of the demountable type, and has for its object an improved construction possessing the desirable characteristics of rigidity and strength, which will require no bolts, no crosscut in the rim to admit water into the tire casing or shoe and which can be very easily manufactured and will not be liable to get out of order or become loose in service. The device aims to generally improve devices of this class so as to render them more useful and commercially desirable. Canadian and U. S. patent rights for sale by W. Martin, 12,407 St. Clair Ave., Cleveland, Ohio.



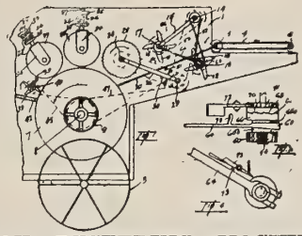
RESILIENT TIRE for use on vehicle wheels, and embodies springs in contradistinction to tires of the pneumatic type in order to give resiliency to the structure, the principal object being to provide a resilient tire which may be inexpensively manufactured and at the same time prove durable and easily maintained in good repair. For further particulars apply to R. F. Burnett, R.R. No. 3, Coffeyville, Kans., who offers patent rights for sale.

WINDSHIELD MATCH-SAFE, a newly patented device by means of which a pipe, cigar or cigarette can be easily and surely lighted by a common match in the highest wind. Neat, novel, simple and inexpensive, and needed by every smoker. Should prove to be a great seller. Patent rights for sale by E. P. Hovey, East Quogue, N.Y.

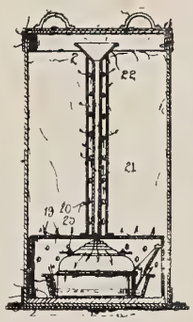




STORM WINDOW HOLDER, particularly adapted for securing a frame window in place or which may be used equally as well for supporting screen frames or the like. The fastener is attached to the inside of the frame and is protected from the elements so that the possibilities of water entering the screw holes by which the fastener is attached and rotting of the material is limited. Patent rights for sale by E. P. Ekman, Wausa, Nebraska.



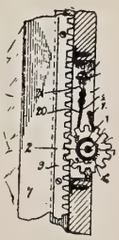
FLAX DESEEDING MACHINE, a thoroughly efficient and economical machine, specially provided with means for automatically feeding or retarding the feeding operation as desired. No wasted seed. Simple in construction, strong, durable, easily operated, and may be manufactured and placed on the market at a price that will compete with any of the present devices. Patent rights for sale by H. L. Larson, Headquarters Northern Con. Co., P.G.E.R.R., Cariboo, B.C.



DISINFECTOR AND DEODORIZER, particularly adapted to disinfect and fumigate articles such as clothes, by the use of formaldehyde or other like disinfecting materials. The device is very simple in construction, may be cheaply manufactured, and is of inestimable value to doctors for emergency operations where it is necessary that uniforms or clothes must be thoroughly disinfected on short notice. For further particulars apply to E. J. Capek, Schuyler, Nebr., who offers patent rights for sale.

CHOCK BLOCK to be used in connection with a waggon bolster. The device consists of a channel iron disposed in the ordinary bolster, a chain means for fastening the channel iron and chain to the bolster, a block disposed in the channel, and further provided with a slot below the opening and communicating therewith, said chain being insertable in the opening and locked in the slot for holding the block in a set position. This device is one which, in view of its convenience and simplicity, should prove an interesting proposition. Patent rights for sale by G. Abrey, Osceola, Ark.

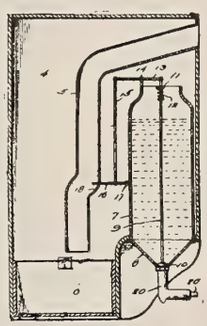




WINDOW ATTACHMENT for use in connection with windows for obviating the necessity for the now generally used window cords and weights and generally simplifying and improving the construction of devices of this nature. It may readily be applied to the window frame or removed therefrom and is of extremely simple and inexpensive construction, embodying but few separable parts, all of which may be manufactured at a low cost. Patent rights for sale by J. Stavnizky, 90 Wells St., South Manchester, Conn.

IMITATION GRASSHOPPER, is so natural that it is hard to distinguish between the real thing and this new imitation. It has been proven that they will catch bass and shy big trout when other lures fail. The device consists in forming a body portion of buoyant material, the legs being made from shafts of feather by cutting the barbs from the shafts and bending the shafts to form triangular members having overlapping ends. Then the shafts are fastened in place on the body in a manner to represent the legs of a grasshopper, and by fastening the feathers upon the back of the body member you have the grasshopper complete in detail. There is nothing in the whole makeup that will rot out of season. The whole construction is strong and durable and when carefully handled will outlast any other fly. Patent rights for sale by M. M. Palmer, 119 West Washington St., Pasadena, Cal.



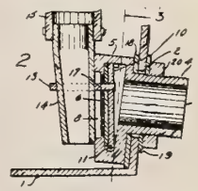


VENDING MACHINE, a simple and ingenious device for the dispensing of beverages so constructed that by placing a coin in the chute provided the device will automatically measure out a certain proportion of the beverage to be dispensed. The device is very simple in construction, attractive in design, and should prove an interesting proposition in view of the very extensive and uncompeted market. Patent rights for sale by E. P. Mitchell, Tappen, N.D.



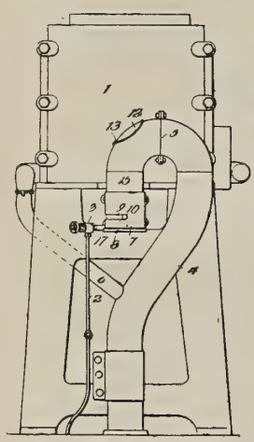
RAILWAY FREIGHT CAR for expeditious handling of freight of railroads and steamships. With this device railroads would know no such thing as freight congestion and steamships, of course, would not be delayed by stalled railroad shipments. The device will effect the complete release of freight cars from every siding and terminal and will effect enormous economies in railroad fuel and car equipment, and prevent breakage of merchandise in transit. Absolutely no delays. For further particulars apply to H. Epstein, 277 Broadway, New York, N.Y.

WASH TUB of special construction, having a perforation in the side wall of the tub and a nozzle adjustably attached so as to facilitate the emptying or filling of the tub with water as desired. The device is so constructed that it may be manufactured separately or used in connection with a tub washing machine. Patent rights for sale by Mrs. Alina Lukus, 13 Lerox St., Flagstaff, Ariz.



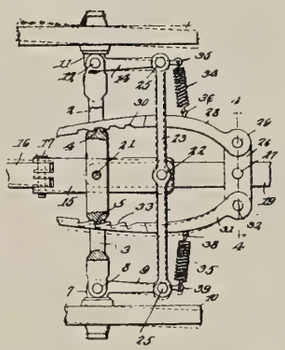
HAROLD C. SHIPMAN & CO., Patent Attorneys, Ottawa, Canada

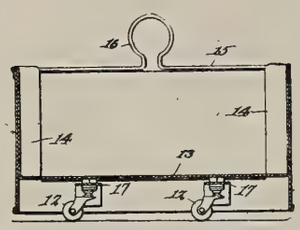
PATENTS FOR SALE



BLAST PIPE CONNECTION, to be used in connection with a furnace having an air conduit and a goose neck section immediately adjacent to the furnace and leading into the combustion chamber of the furnace and an automatic damper hinged within the apex of said goose neck section, and adapted to be automatically secured in its raised position. This device is partly adapted to be used in connection with an oil-burning furnace and has been thoroughly tested. Patent rights for sale by A. J. Borener, 1143 E. 81st St., Chicago, Ill.

WAGON TONGUE having specialmeans for mounting same in such a way that the tongue will not swing laterally and strike the animals when one wheel of the vehicle drops into a hole or other depressionin the highway. The device has been thoroughly tested and has been proven to be absolutely efficient in use. For further particulars, apply to J. Hendrickson, P.O. Box 461, Mullan, Idaho, who offers patent rights for sale.

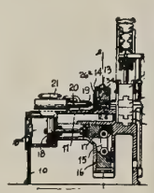




CUSPIDOR HOLDER AND LIFTER, the device is absolutely sanitary and provides a simple, inexpensive, and efficient means for holding and lifting cuspidors, for the movement of same from one place to another without lifting, and is adapted to prevent accidental overturning of the cuspidor Patent rights for sale by W. G. Devlin, Arcata, Cal.

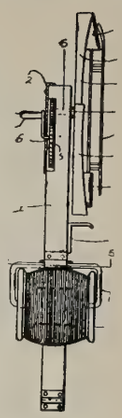
HASP LOCK, a strong durable and efficient device, which may be cheaply manufactured and placed on the market and that will compete with any of the present devices. The device is one which has been thoroughly tested and which has been found to be superior in construction and more efficient in use than any article of this nature that has yet been brought to the attention of the public. Patent rights for sale by H. E. Miller, Moro, Ark., U.S.A.

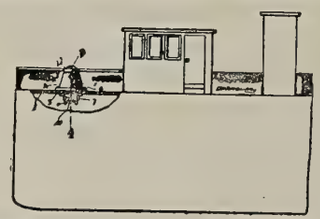




DRILL FORMING DIE for forging and sharpening rock drills or other drill bits, and particularly adapted to be used in connection with machines which have vertical operating clamping dies and horizontally operating upsetting hammer. The device is one which has been thoroughly tested and is beyond any question of experiment. For further particulars apply to O. C. Julien, Montreal, Wis., who offers patent rights for sale.

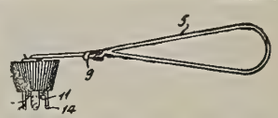
SHUTTLE WINDER for winding thread upon tatting shutters, is compact in structure and has a shuttle holder rotatably supported by a suitable supporting structure. The shuttle holder is constructed of a pair of telescoping sections so that it may be adjusted for holding any size of tatting shuttle. The device is simple in construction and has been thoroughly tested and found to be absolutely efficient in use. Patent rights for sale by W. Hendry, 1011½ A St., Tacoma, Wash.





APPARATUS FOR RAISING SUBMERGED VESSELS which may be permanently secured to the vessel, and which, when the vessel is sunk, will indicate the location of same and form a guide for the lifting mechanism, so that the latter may be carried directly to the ship when let down into the water, and secured to same to facilitate the raising thereof. Patent rights for sale by W. A. Blakesley, 3403-30th Ave., S.W., Seattle, Wash.

PIE CRIMPER designed to readily press together the edges of the pie crust and simultaneously trim the edge of the pastry protruding over the edge of the pan. The device is of simple and durable construction and may be manufactured and sold at a comparatively low cost with a very reasonable profit. Patent rights for sale by J. H. Brewer, Silverton, Ore.



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For Sale.—Three 1,000 K.V.A. General Electric Transformers 12,000-120 Volt, single phase, 25 cycle, oil insulated water cooled transformers.—Norton Company, Chippawa, Ont.

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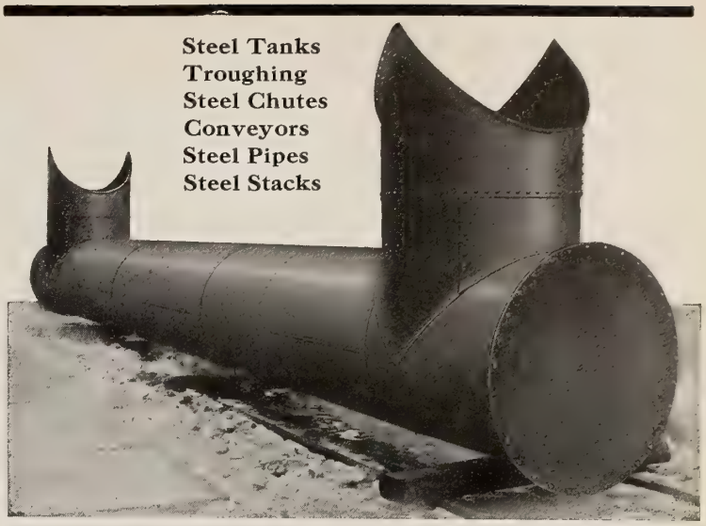
Patent for sale on Lamp Chimney Holder. Simple and inexpensive to manufacture. Will sell outright for cash or sell right to manufacture in Canada. Stays on burner when chimney is pulled off, but may be removed or put on any time. Miss Amanda Halverson, Delavan, Minn.

Closer Relations With B. West Indies

(*Continued from page 57.*)

build up the Empire, until that portion of the Empire down there would be something that we should be proud of. We should have in North America a bulwark of the Empire of a size and of an importance such as at present we little dream of.

Now, I make certain suggestions; I have very definite views myself as to what is best. Another man makes other suggestions, and a third person makes other suggestions, and you do not know what to do, and no government knows what to do. And if I were in the Government, I would not know what to do, but I would know that the only way to decide a thing like this is, not to take what I say, or what any other fellow says, but to begin by getting a commission appointed, with British Guiana alone, preferably, to discuss their special problems. There will be no trouble at all in getting the 50 per cent. arrangement. British Guiana is ready to consider the appointment of a commission to discuss the question. Let us make some move. What we want is to have a commission representing British Guiana and representing Canada, and the Mother Country also would have a representative on it, and let them take everything into account and let them thresh out all these different matters and decide how far we can go in the direction of relationship, commercial or political; let them consider everything and make a definite recommendation of what is necessary to consolidate, commercially at least, Canada and the West Indies. If Canada does that, our Government will have done one of the most important things ever done by a Canadian Government, and I hope something will be done soon.



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We specialize in doing work that other shops don't care to tackle.

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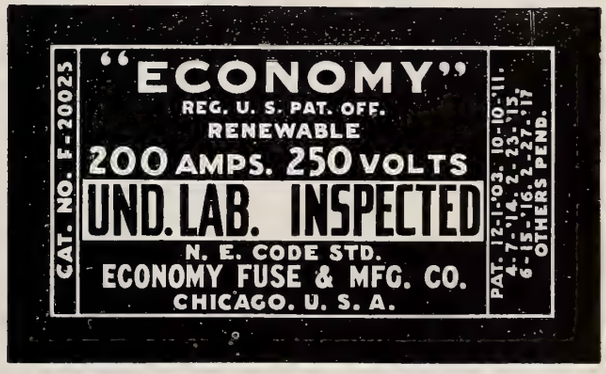
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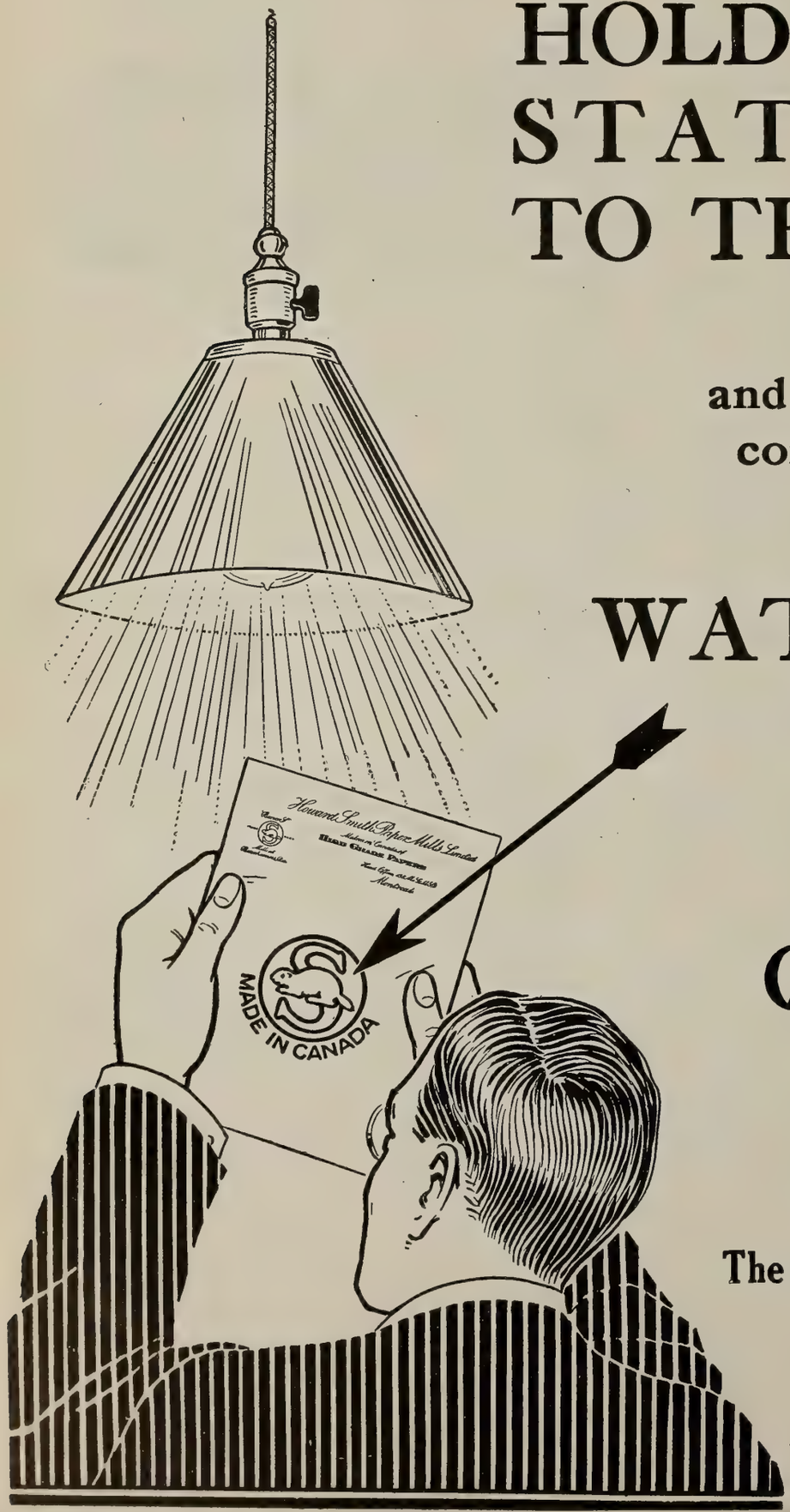
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OFFICE AND FINANCE

Why Appraisals of Plant are Necessary

The Four Prime Uses of an Appraisal and Some of the Factors which Enter into the Determination of Present-Day Value

By CHARLES W. McKAIY

(Reprinted from "Factory")

THE four prime uses of the industrial appraisal of to-day are:

1. For determining annual depreciation for purposes of Federal income tax.
2. For determining insurable values.
3. For use in cost accounting.
4. For financial purposes.

A brief résumé of these four prime uses of the engineering appraisal will be presented in this article and a more detailed consideration will be accorded them in the ensuing articles in this series. It is not the purpose of these articles to attempt to train the reader as an appraisal expert, but rather to present the fundamentals of these all-important questions of value and depreciation in such a manner as to facilitate the busy executive in the future administration of his business.

Depreciation for Tax Purposes

The use of an appraisal in connection with the determination of annual depreciation for tax purposes presents many intricate and involved problems. To paraphrase the voluminous literature issued by the Inland Revenue Branch of the Treasury Department, it may be said that the basis for determining annual depreciation is "cost." Cost, as defined by the Revenue Department, consists of cost as of March 1, 1913, for all buildings, machinery, equipment, and so on installed, or acquired, prior to that date, and actual original cost as shown by the company's books and records for all property acquired subsequent to March 1, 1913.

After determining cost in the manner above outlined, it is next necessary to determine average lives applicable to the various component elements of an industrial company's buildings, machinery, and equipment. The average life of any item of plant is dependent upon the following four factors:

1. Depreciation resulting from wear and tear.
2. Depreciation resulting from age.
3. Depreciation due to inadequacy.
4. Depreciation due to obsolescence.

All of these factors must be given the most careful consideration in determining the average life of industrial equipment.

Knowing the average life and the scrap or salvage value, it is a comparatively simple task to determine an annual rate of depreciation which, when applied to the item of plant under consideration, will give the corresponding depreciation in dollars per annum.

The Federal Government has placed the burden of the proof, as to costs and as to annual depreciation, squarely upon the taxee or, more properly speaking, squarely upon the appraisal engineer whom the taxee appoints to represent him in solving his depreciation problems.

The truth of the foregoing statement will be obvious from the following quotations, each taken from a recent letter to the writer from the Inland Revenue Branch of the Treasury Department:

"A reasonable allowance for the wear and tear of property arising out of its use or employment in the business or trade is to be based on the cost of such property—or on its fair market price or value as of March 1, 1913, if acquired prior thereto. In the absence of proof to the contrary, it will be assumed that such value as of March 1, 1913 is the cost of the property less depreciation up to that date.

"Replying to your inquiry as to the proper rates to be used in computing depreciation on various classes of machinery, you are informed that no rates are prescribed by this office. The rate must be determined by the estimated number of years constituting the probable life of property with respect to which depreciation is claimed.

"You are advised that this office has established no specific method of determining the capital sum to be replaced by depreciation allowances, but considers such sum a question of fact to be established by any evidence which the tax-payer chooses to submit in support of the figure placed upon it by him."

It will be obvious that the determination of "cost," for tax purposes, is by no means a simple problem. The inventory must be so taken as to segregate all buildings, machinery, and equipment installed, or acquired, prior to March 1, 1913, from buildings, machinery, and equipment acquired subsequent to that date. The inventory of plant acquired between March 1, 1913 and the date of appraisement must again be subdivided to show the actual dates of acquisition of the component elements.

In determining average life—and therefore annual depreciation rates—the whole inventory (both the inventory of plant acquired prior to March 1, 1913 and the inventory of plant acquired subsequent to that date) must again be subdivided, or classified, according to the average lives, or depreciation rates, of the component element. In other words we cannot apply the depreciation rate applicable to property found to have an average life of 20 years to property having an average life of 10 years.

Proof Must be Conclusive

Again, in view of the fact that the Federal Government has so obviously placed the burden of the proof—in this matter of depreciation—upon the taxee, it is most important that such proof shall be conclusive—founded upon recognized principles of depreciation, modified to meet the peculiar requirements of the case in hand.

This term, "peculiar requirements," has been used advisedly. The obsolescent factor of depreciation, for instance, is a variable one. Certain conditions may exist, and can be proved to exist, in one plant for a given type of machine which do not exist in another plant for the same type of machines. The same argument applies to building and miscellaneous equipment.

The writer recalls a case where a building which, under ordinary conditions, would have had a relatively long life,

BANK OF MONTREAL

Established over 100 Years

Capital Paid Up - - $20,000,000
Rest - - - $20,000,000
Undivided Profits, $1,812,854
Total Assets - $545,304,809

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AGENTS IN FRANCE

Lloyd's and National Provincial Foreign Bank Limited

AGENTS IN UNITED STATES

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CHICAGO—First National Bank BUFFALO—Bank of Buffalo
DETROIT—Old Detroit National Bank
SAN FRANCISCO—Wells Fargo Nevada National Bank
and in all other principal centres

HEAD OFFICE . . TORONTO

bid fair to have an exceedingly short life—due to two of the four depreciation factors already referred to. In the first place the vibration of the peculiar type of machinery used in the case in question tended materially to shorten the life of the building. This shortening of life was obviously due to the "wear and tear" factor of depreciation.

Again, rapid changes in the manufacturing art were so modifying the machine requirements that it seemed probable that the building in question would have to be entirely rebuilt at an early date to provide for the installation of the new machinery necessary to keep pace with the change in the manufacturing requirements. Hence, the building was depreciating rapidly, not only from wear and tear, but also from obsolescence.

Unless every depreciation problem of this nature is solved upon its individual merits by technically trained appraisal specialists, the conclusions reached are likely to prove faulty, and the proof—as to depreciation—submitted by the taxee, may not withstand the searching scrutiny to which it is bound to be subjected by the Federal Tax authorities. The Federal Government, in placing the burden of the proof upon you, the taxee, expects—and has a right to expect—a complete, concise and authoritative solution of your problem.

This whole question of the relation of depreciation to industrial appraisement and to the Federal income tax will be treated in detail in subsequent articles in this series.

The Insurance Appraisal

The insurance appraisal requires entirely different treatment from one made for purposes of determining annual depreciation. Insurable values are determined upon the basis of reproduction, or replacement costs. Reproduction costs, to be complete, must include not only the cost of machinery and equipment f.o.b. point of purchase but also the freight and installation charges on the equipment purchased.

From the reproduction cost there must be deducted accrued depreciation—in other words the present sound insurable values as of the date of appraisement must be determined.

In making an insurance appraisal, proper summaries must be provided to show the insurable values according to the insurance company's subdivision of the property.

The advantage of an unbiased appraisal, made by a neutral outsider, can hardly be exaggerated. The subject of insurance appraisals, and practical suggestions as to their preparation, will be discussed in a subsequent article.

The Appraisals in Cost Accounting

Competition in modern industry—and the constantly increasing cost of material and labor—has made the subject of cost accounting a most important one.

It is frequently advisable to allocate manufacturing costs to the various operating departments. In so doing, it is necessary to know not only the actual material and labor costs but also the overhead costs or "departmental burden."

In determining the investment by departments and in allocating the overhead charges for insurance, interest, taxes and depreciation, the engineering appraisal plays a very important part.

Having determined the total investment and the investment in each department it is a comparatively simple problem to allocate properly all of the overhead costs.

There is still another, and a most important use of the modern engineering industrial appraisal. Industrial companies frequently require capital for plant extensions and business promotion. The investment bankers who make a specialty of financing industrial property require a complete appraisement of both the tangible and intangible assets of the company under consideration.

This phase of the subject of industrial appraisement is

most important to the industrial executive, and will be treated in detail in the last article in this series.

Besides the four main uses outlined here, other more specialized uses arise from time to time in a particular plant. The appraisement for these specialized uses is handled as the individual case demands.

The importance of so designing an industrial valuation as to meet all the demands that may be placed upon it, can hardly be exaggerated. It is possible to design an appraisal to meet every valuation requirement of the industrial executive. The scope and manner of preparation of such an appraisal will be discussed in subsequent articles, together with a comprehensive, but concise, treatment of the subject of depreciation.

Dominion Bank

Strong Position of This Institution Disclosed by Annual Statement for 1919

A perusal of the statement submitted to the shareholders of the Dominion Bank at the annual meeting on Wednesday, January 28th, very clearly indicates that this well-known institution had a most satisfactory year ending December 31st, 1919.

The net profits amounted to the substantial sum of $1,169,000, an increase of $83,000 compared with 1918. As a result the bank paid to its shareholders a bonus of 1 per cent., in addition to the regular dividends at the rate of 12 per cent. per annum. In all $780,000 was distributed in dividends and bonus. The net profits amounted to 9 per cent. of the bank's capital and reserve.

As to the improvement which took place during the year in the bank's financial position, the total assets on December 31st last, stood at $143,500,000, an increase for the twelve months of $10,000,000. But that which will particularly interest those who are disposed to closely analyze financial statements is the fact that the bank's immediately available assets are equal to 54 per cent. of its liabilities to the public. The item standing under this heading is $70,075,000, being an increase of $6,546,000 over 1918. Cash assets alone amount to 24.59 per cent. of the public liabilities, the total cash assets, $31,903,000, being in excess of the previous year by $3,405,000.

It is quite evident that the management of the Dominion Bank has continued during the year its conservative policy in respect to the valuation of its assets and the augmenting of the bank's general strength. Off its bank premises account it has written the sum of $300,000, or $50,000 more than it did in 1918, while its note circulation has been reduced by $332,000. The balance carried forward to profit and loss account, amounting to $495,700, is in excess of the previous year by about $50,000.

That there has been an expansion in the Bank's relationship with the business interests of the country is evident from the increase of $2,328,000 which took place in commercial loans, the total at the end of the year standing at $66,400,000.

Laurentide Company

Reorganization has been Approved by the Shareholders of the Company

At a special meeting of shareholders of the Laurentide Co. on January 27, approval was unanimously given to reorganization proposals submitted by the board. Assets and liabilities will be transferred to a new company of the same name,

EXPORT TRADE

Manufacturers contemplating the extension of trade in foreign countries are offered the assistance which this Bank's world-wide business connection makes possible.

The experience and facilities of a department of the Bank devoted wholly to foreign business are at your command.

THE CANADIAN BANK OF COMMERCE

PAID-UP CAPITAL - - - $15,000,000
RESERVE FUND - - - $15,000,000

85A

The Merchants Bank of Canada

Head Office, MONTREAL Established 1864

Paid-up Capital - - - - - $ 7,000,000
Reserve Funds - - - - - - 7,574,043
Total Deposits (Nov. 30, 1919) - - - - 167,000,000
Total Assets (Nov. 30, 1919) - - - - 200,000,000

President: Sir H. Montagu Allan, C.V.O
Vice-President: K. W. Blackwell
General Manager: D. C. Macarow
Supt. of Branches and Chief Inspector: T. E. Merrett

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365 Branches in Canada Extending from the Atlantic to the Pacific, of which 138 are in Ontario, 44 in Quebec and 180 in Western Canada

NEW YORK AGENCY, 63-65 WALL ST.

THE DOMINION BANK

At the Forty-Ninth Annual General Meeting of the Shareholders of the Dominion Bank, held at the Head Office, in Toronto, on 28th January, 1920, the following statement of the affairs of the Bank as on the 31st December, 1919, was submitted :

Balance of Profit and Loss Account, 31st December, 1918..		$446,503 22
Profits for the year, after deducting charges of management and making full provision for bad and doubtful debts..	$1,256,053 83	
Less		
Dominion Government War Tax (on circulation) $60,000 00		
Taxes paid to Provincial Governments 26,350 00		
	86,350 00	
Making net profits of		1,169,703 83
		$1,616,207 05
Which amount has been disposed of as follows:		
Dividends (quarterly) at Twelve per cent. per annum $720,000 00		
Bonus one per cent. 60,000 00		
Total distribution to Shareholders of Thirteen per cent. for the year	$780,000 00	
Contribution to Officers' Pension Fund	30,000 00	
Contributions to Patriotic and other Funds	10,500 00	
	$820,500 00	
Written off Bank Premises.....	300,000 00	
	$1,120,500 00	
Balance of Profit and Loss Account carried forward	495,707 05	
		$1,616,207 05

GENERAL STATEMENT

LIABILITIES

Capital Stock paid in		$6,000,000 00
Reserve Fund	$7,000,000 00	
Balance of Profit and Loss Account carried forward	495,707 05	
Dividend No. 149, payable 2nd January, 1920	180,000 00	
Bonus, one per cent., payable 2nd January, 1920	60,000 00	
Former Dividends unclaimed ...	4,089 00	
		7,739,796 05
Total Liabilities to the Shareholders		$13,739,796 05
Notes in Circulation		$9,525,809 00
Due to Dominion Government ..		5,000,000 00
Deposits not bearing interest..	$37,088,399 96	
Deposits bearing interest, including interest accrued to date	74,325,657 59	
		111,414,057 55
Balances due to other Banks in Canada		878,911 22
Balances due to Banks and Banking Correspondents elsewhere than in Canada		973,956 16
Bills Payable		197,532 96
Acceptances under Letters of Credit		1,168,405 41
Liabilities not included in the foregoing		606,451 47
Total Public Liabilities		129,765,123 77
		$143,504,919 82

ASSETS

Gold and Silver Coin		$1,980,842 69
Dominion Government Notes ...		15,843,726 00
Deposits with Central Gold Reserves		4,100,000 00
Notes of other Banks		1,170,382 54
Cheques on other Banks		6,816,287 08
Balances due by other Banks in Canada		3,857 96
Balances due by Banks and Banking Correspondents elsewhere than in Canada		1,988,043 33
		$31,903,139 60
Dominion and Provincial Government Securities, not exceeding market value		8,790,080 39
Canadian Municipal Securities, and British, Foreign and Colonial Public Securities other than Canadian, not exceeding market value		13,334,525 62
Railway and other Bonds, Debentures and Stocks, not exceeding market value		1,996,115 44
Call and Short (not exceeding thirty days) Loans in Canada on Bonds, Debentures and Stocks		9,352,534 25
Call and Short (not exceeding thirty days) Loans elsewhere than in Canada.....		4,698,984 25
		$70,075,379 55

THE DOMINION BANK—*Continued*

Other Current Loans and Discounts in Canada (less rebate of interest)	65,396,248 68	
Other Current Loans and Discounts elsewhere than in Canada (less rebate of interest)	1,050,488 62	
Liabilities of Customers under Letters of Credit, as per contra	1,168,405 41	
Real Estate other than Bank Premises	5,469 57	
Overdue Debts (estimated loss provided for)	74,566 85	
Bank Premises, at not more than cost, less amounts written off	5,407,180 30	
Deposit with the Minister of Finance for the purposes of the Circulation Fund	304,500 00	
Mortgages on Real Estate sold..	22,680 84	
		73,429,540 27
		$143,504,919 82

E. B. OSLER, *President.* C. A. BOGERT, *General Manager.*

AUDITORS' REPORT TO SHAREHOLDERS

We have compared the above Balance Sheet with the books and accounts at the Chief Office of The Dominion Bank, and the certified returns received from its Branches, and after checking the cash and verifying the securities at the Chief Office and certain of the principal Branches on December 31st, 1919, we certify that, in our opinion, such Balance Sheet exhibits a true and correct view of the state of the Bank's affairs, according to the best of our information, the explanations given to us and as shown by the books of the Bank.

In addition to the examinations mentioned, the cash and securities at the Chief Office and certain of the principal Branches were checked and verified by us at another time during the year and found to be in accord with the books of the Bank.

All information and explanations required have been given to us and all transactions of the Bank which have come under our notice have, in our opinion, been within the powers of the Bank.

G. T. CLARKSON, R. J. DILWORTH } of Clarkson, Gordon & Dilworth, C.A.

Toronto, January 20th, 1920.

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while shareholders receive three shares of stock in the new company for each share held in the old company.

The President of the company, George H. Chahoon, jr., who presided at the meeting, briefly outlined the plan recommended by the Executive of the enterprise, stating that it had been arrived at with the view to providing for the further development of the property and in the general interest of Laurentide shareholders. The company, he said, had materially increased its production of sulphite and groundwood pulp, and had already contracted for the building of two new newsprint-making machines of a daily capacity of seventy tons each. Delivery of these machines was expected early in 1921, and the output has been sold at prices which should prove lucrative to the shareholders.

Brompton Pulp

Annual Dividend is Now on a 6 per cent. Basis, Payable Quarterly

Reviewing the result of the year's operations at the annual meeting of the Brompton Pulp and Paper Co. on Jan. 15, Mr. F. N. McCrea, the president, stated that the first half of the fiscal period had been a very lean one, so far as business and earnings were concerned. Companies engaged largely in the production of newsprint paper had been in a more fortunate position than those whose output consisted of other lines, such as Kraft wrapping papers and other products in less urgent demand at the time. Conditions, however, Mr. McCrea said, had much improved in the last half of the twelve months, and he anticipated that the company was "in for a good year."

As an example of the improvement which had set in, the president stated that one of the company's subsidiaries, the Odell Manufacturing Co., whose sales in January of last year amounted to only $52,000, had booked business in December amounting to some $381,000.

Following the meeting of shareholders, the directors, who had been re-elected, declared a quarterly dividend o 1½ per cent on the common stock, thus placing the shares on a 6 per cent. basis. Previously the stock paid 5 per cent. per annum.

Imperial Oil Limited

New Issue of Stock Being Made Which Will Raise Fifteen Millions of Capital

Imperial Oil Limited are offering shareholders 200,000 shares of the unissued capital stock of the company at $75 per share, in the proportion of one new share for every six shares held. By this plan the issued capital of the company will be increased from $30,000,000 to $35,000,000, though, as the shares are being put out at three times the par value, the sum of $15,000,000 will be put into the treasury. Payment may be made in full on March 1 or in four equal instalments of $18.75 per share on March 1, June 1, September 1, and December 1.

Gillette Safety Razor Co.

Company Enjoyed Substantial Growth in Business During Past Year

At the annual meeting of the Gillette Safety Razor Co., of Canada, Limited, held in Montreal, on Jan. 27, it was reported that net earnings for 1919 were $821,394, an increase of $306,958, or almost 60% over 1918. An interesting factor in the company's business during the year was a substantial increase

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in export trade, especially that with Great Britian and other outlying portions of the British Empire. It was announced at the meeting that negotiations had been completed for the purchase of property adjoining the present premises of the company, containing some 13,000 square feet, with the buildings thereon. It is the intention of the Executive to further extend its plant capacity.

Dominion Bridge Co.

Earnings for the Past Year Declared to be Most Satisfactory in View of Conditions

Earnings of the Dominion Bridge Co., Limited, during the first year of peace amounted to $1,640,531. This compares with $2,477,009 in 1918. After the usual allowances, there remained $1,343,305 for disposition, representing earnings at the rate of 20.6 per cent. on the share capital. With the addition of the previous year's balance, the amount carried forward into the current year's account was $3,848,613.

Reviewing the results of the year's operations, G. H. Duggan, the President of the company, stated to the shareholders: "The result is considered satisfactory in view of the conditions obtaining during the year. The beginning of the past financial year was practically co-incident with the date of the cessation of hostilities; the armistice caused the cancellation of munition orders, with whch the shops were filled, disrupting the business of the company. The adjustment of these muntion orders and of the organization of peace conditions, together with the general public hesitation in placing business resulted in very little profitable occupation for the plants and organization during the early months. The costs of both labor and material have, contrary to expectations, increased during the year, and were therefore in excess of estimates.

"During the latter half of the year there was a marked improvement. It closed with a fair volume of business and good prospect of an active demand for the present year."

Canadian Car

American Interests Now Secure a Place on the Board of the Company

Changes of considerable importance in the board of the Canadian Car and Foundry Co. were effected at the annual meeting of the company on January 25. Two of the former directors, Messrs. Erskine Hewitt and J. Frater Taylor, retired, and four new directors were added, viz., W. H. Woodin, President of the American Car and Foundry Co.; Andrew Fletcher, President of the American Locomotive; Lewis L. Clarke, President of the American Exchange National Bank of New York, and Francis H. Clergue, Montreal.

In his address to the shareholders, Mr. Butler dwelt at some length on the importance of the new alliance with the powerful companies working in similar and kindred lines to the Canadian Car concern. He stated that Mr. Clergue was the largest individual holder of the company's stock at the present time, after some 26,000 shares had been transferred by him to Mr. Woodin.

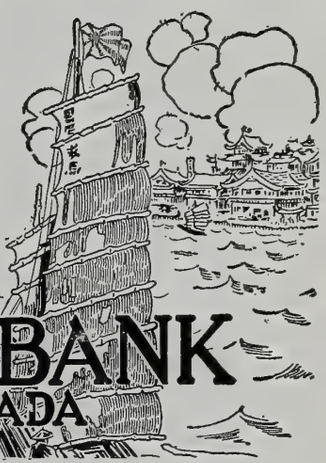
The various plants of the company, Mr. Butler stated, were never in better condition than they are at present, and that the car concern was in a good financial position. The 1919 business, he said, had approximated $33,000,000, and the company had $8,000,000 of orders on the books at the beginning of the current calendar year. Last year, on the same date, unfilled business had amounted to $17,000,000, but, nevertheless, a good average business was expected in 1920.

Tokyo

Japan's increasing foreign trade is characteristic of the intelligence and energy of the nation.

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Additional Reports on 1919 Conditions

OWING to delays in the receipt of some of the contributions sent in for publication in the January issue and also to the fact that a number of reports were crowded out at the last minute, it has been deemed advisable to continue this valuable feature into the present number, and on this and following pages will be found a number of additional articles dealing with 1919 conditions and the outlook for business in the year 1920.

Clothing Manufacturers and the Labor Problem

By C. B. LOWNDES
President, The Lowndes Co., Limited, Toronto

THE transition of the men's clothing business from a war to a peace footing resulted in a tremendous unsettlement throughout the entire industry. Prior to the armistice men were continuously going into khaki, and the Canadian clothing manufacturers suffered materially in reduced volume of business throughout the period following the commencement of hostilities.

At the end of 1918 there was a very great scarcity of business, and when it became mooted that there was the possibility of getting export orders for clothing and an arrangement was made effective by the Canadian Government through the creation of credits in favor of Roumania, it was naturally grasped at by the great bulk of those engaged in the business. Following the placing of this business, in which time cloths and linings had to be bought and patterns and models developed, demobilization commenced with a consequent increase in the demand for domestic trade. As greater numbers of soldiers were discharged, the retail trade were cleaned out of all classes of men's garments and stocks were rapidly depleted all over the country. The demand for spring lines increased enormously and fall bookings were exceptionally heavy and far beyond the expectations of the great bulk of Canadian clothing makers.

Increasing Disturbances

When business commenced to advance, it became noticeable that there was an increasing disturbance in the labor situation, and at once the evils which had pursued the trade for some time commenced to show themselves. The shortage of workers became more pronounced month by month, and the fact that no help had been trained during the period of the war years, that the source of supply for the class of help that usually engaged in the clothing business had been cut off, that there had been a tremendous change in four years through natural decrease in the industry by way of marriages and deaths, and that large numbers had left Canada during the period of hostilities in order to avoid military service, all these factors combined to place the industry at the greatest disadvantage it has ever been in in its history.

Manufacturers realizing the difficulties of the situation and the possibility of their being unable to get their goods delivered, commenced to bid for labor, and the workers, realizing that the manufacturers were deluged with orders and were dependent entirely upon their services for delivery, encouraged the practice, until it was quite evident to many that the situation had every aspect of resulting disastrously unless it could be promptly controlled. Many manufacturers were of the opinion that labor in its attitude was unfair to the industry, while a few more moderate in their point of view recognized the principle that, when three jobs were open to one man, the individual so placed was likely to be a picker and chooser and the advantages of the laws of supply and demand were all upon his side. With conditions in this state, production gradually diminished, and despite the introduction of policies of various kinds dictated by expediency, there was no general improvement in the situation, as the objects sought by labor were the recognition of its right to organize, to have collective bargaining, and compulsory arbitration. With this situation governing, the early months of 1919 were fraught with continuous difficulties to the manufacturers.

Trade Cleaned Out of Stock

As indicated above, when the travellers went on the road for fall bookings, they found the retail trade practically cleaned out of stock, and in addition to the labor difficulties, manufacturers found increasing difficulties in getting cloths from the mills owing to lessened production created by a shortening of hours in practically all textile lines. Fall orders were booked on the basis of the wages governing during the spring months, and herein the manufacturers of the country were, generally speaking, very heavy losers, for no sooner were fall orders booked than the individual demands of the workers became greater and greater. In addition, collective demands were made which were acceded to in order to maintain production.

At this point a few manufacturers in Toronto, recognizing that if the goods were to be manufactured and the retail trade to be supplied it would be necessary that steps be taken to deal with labor, formed what is known as the Associated Clothing Manufacturers, to which 18 houses subscribed their signatures. This organization met the officials of the Amalgamated Clothing Workers of America, representing the employees, and an agreement was reached, the result of which indicates a control in the clothing industry of wonderful significance and pointing to the possibilities of mutual negotiation between employers and employees. Under this agreement the parties thereto agreed to bring a government into the market, and in the course of the early fall months, unitedly joined in appointing Dr. H. B. Sharman, a former professor of Chicago Unversity and a gentleman of



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outstanding scholastic attainments and considerable business experience, as Impartial Chairman governing the Board of Arbitration, his decision in all cases to be final and to be accepted by both sides without demur.

With the appointment of this Board of Arbitration, under Dr. Sharman, the employers appointed as Labor Manager for the Toronto market Mr. A. A. MacIntosh, formerly of the Toronto *Globe*, but more recently Managing Editor of the *Advertiser* of London, Ont. Mr. MacIntosh occupies a new position in Canadian industrial life, being virtually in control of all arrangements made on behalf of employers with the representatives of the workers. His decisions, in so far as they affect the employers, are final, and it is his duty to interpret the policy of the organization which he represents so that it shall result to the advantage of those connected with it. The Amalgamated Clothing Workers of America have as their representative Mr. H. D. Rosenbloom, who himself prior to becoming associated in organization work was a worker in the ranks of factory employees. Among employees he is recognized as both fearless and capable in unholding the rights of those he represents, and it is generally conceded that he has a keen appreciation of what is necessary for the proper protection of the industry as a whole. The officers of the Associated Clothing Manufacturers are: President, C. B. Lowndes of the Lowndes Company, Limited; Vice-President, Wm. Johnston of Randall & Johnston, Limited; Treasurer, T. W. Learie of W. R. Johnston & Company, Limited; Secretary, R. Schutz of the North American Tailors, Limited.

Noticeable Improvement

With the signing of the agreements between the parties interested, there was a noticeable improvement not only in the stability of the market but in the output of the workers, and conditions to-day are tremendously better than was the position during the early months of the past year.

The problem of the clothing manufacturers in respect to getting goods has almost been as vital as the problem of getting the goods made after they had been secured. Following the armistice, many American woolen manufacturers for a time were panicky and swept into Canada with goods at considerably reduced prices. Canadian manufacturers, having a better grip of the situation, bought freely. Unfortunately for them, however, the American market suddenly stiffened and American mills and agents, finding a higher price for their stuff, in many cases, allowed the orders booked at the low prices to go by the board, turning their attention to selling the goods at higher prices, and no doubt with the ultimate intention of delivering should the prices subside. This experience naturally has not enhanced the reputation of many United States manufacturers, and during the last few months the tremendous depreciation of the Canadian dollar has done more than anything else to drive trade in this country into a realization that it is better to buy at home or to buy in the Old Country, particularly in view of the fact of the advantages to be gained owing to the low rate of sterling exchange.

During the past year Canadian clothing makers have had very little demand for what is commonly known as cheap goods. Most buyers having insisted upon having the better quality article despite the fact of very heavy advances on the price of such. The trends of values, however, have been continuously up, and here it may be said that with cloth prices still rising, and labor costs not decreasing, it is altogether likely that high prices will maintain for some considerable time in the future.

The outlook in the clothing industry shows many abnormal situations, but from all angles, it is unquestionably fav-

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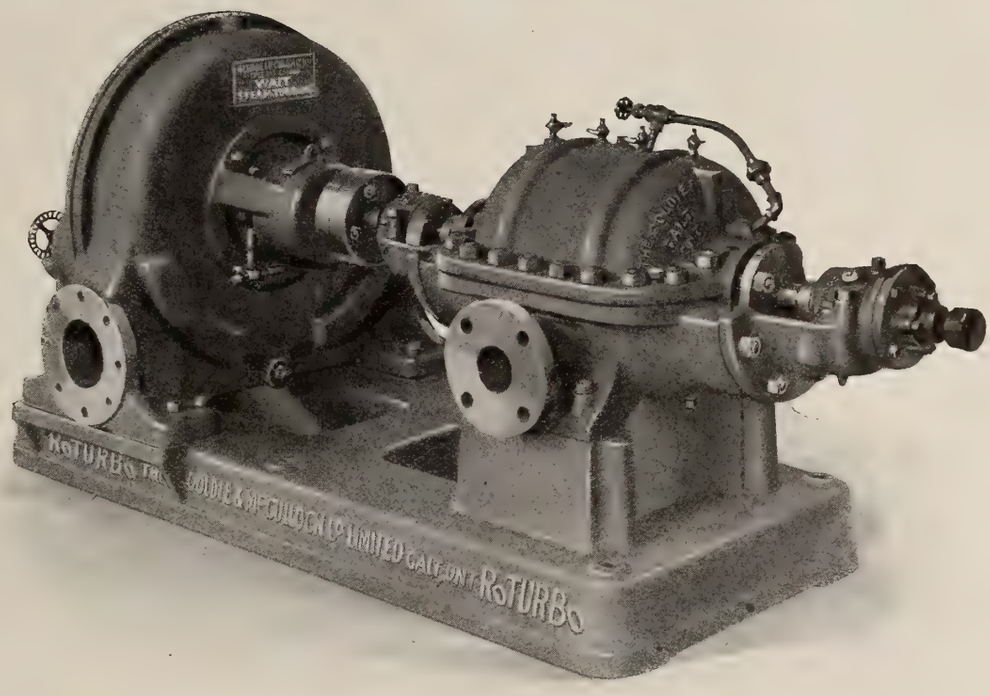


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orable. Most houses are well booked for spring delivery, and providing the cloth makers are in a position to fill orders which have been taken, practically the entire industry should enjoy an excellent season. The prospects for fall 1920 are also good owing to the great shortage of heavy goods, particularly overcoats, during the past fall months.

While the labor market locally may be said to be sound at the moment, it cannot be said that it does not offer elements of potential disturbance owing largely to the fact that the whole trade is not associated in the movement for a better understanding between workers and those who engage them. There has been a tendency during the year to eliminate the piece-work methods, and this is regrettable, but is merely another evidence of the fact that workers will not produce under conditions of prosperity as they will produce under conditions of adversity. It has seen also a movement looking to the elimination of the contract shop and in many respects this is not an unmitigated evil. There will undoubtedly in the next few years be a tremendous impetus to inside manufacturers, which condition will be maintained once it is proven to employers that as much can be produced in the inside shop as has formerly been said to be produced in the outside contract shop.

SCARCITY OF LABOR AND MATERIALS HAMPERS

By C. F. Fell

Hamilton Carrhart Cotton Mills Limited, Toronto

We are experiencing a great deal of trouble in endeavoring to get experienced labor, and also raw materials. While we have been endeavoring to increase our output, due to being heavily oversold, we find that both these conditions mentioned are retarding our progress far more than we are able to comprehend.

As regards marketing conditions, they are very good, and the demand exceeds the supply. We, of course, benefited on the Roumanian order placed through the Trade Commission at Ottawa, and believe that through this means there was a greater demand by the domestic trade.

Unless the mills can increase their output, the outlook for 1920 will not be very bright, and until raw materials are produced in larger quantities, it will be utterly impossible to expand. We had contemplated making several extensions to our plant in order to enlarge our business, but find that owing to the mills restricting the booking of orders, and non-deliveries of contracts placed in the past, it may not be possible for us to make these extensions as at first intended.

BETTER CLASS GARMENTS IN REQUEST

By Jno. A. Northway

John Northway & Son, Limited, Toronto.

The labor in this trade has very largely been foreign, mostly Jews, and since the stop in immigration there has naturally been a great shortage. In our own plant we have had so much trouble with this class of labor that we have discontinued employing same and are building up a staff of a better type. In raw materials, the advance has generally been as high as 300 per cent. We have not increased output much on account of the foregoing conditions.

We find quite a large demand, especially for the better class of garments, more so than before the war, the public demanding garments made of fine qualities of silk and wool, which we might say has a good deal to do with the high price of garments. As all raw materials are still advancing, garments must necessarily follow. We have done nothing to speak of in the export line.

We anticipate that business will be very good for the next few months if there is not too much disturbance in the labor markets at home, in the United States or in England, which would effect the delivery of raw materials to us.







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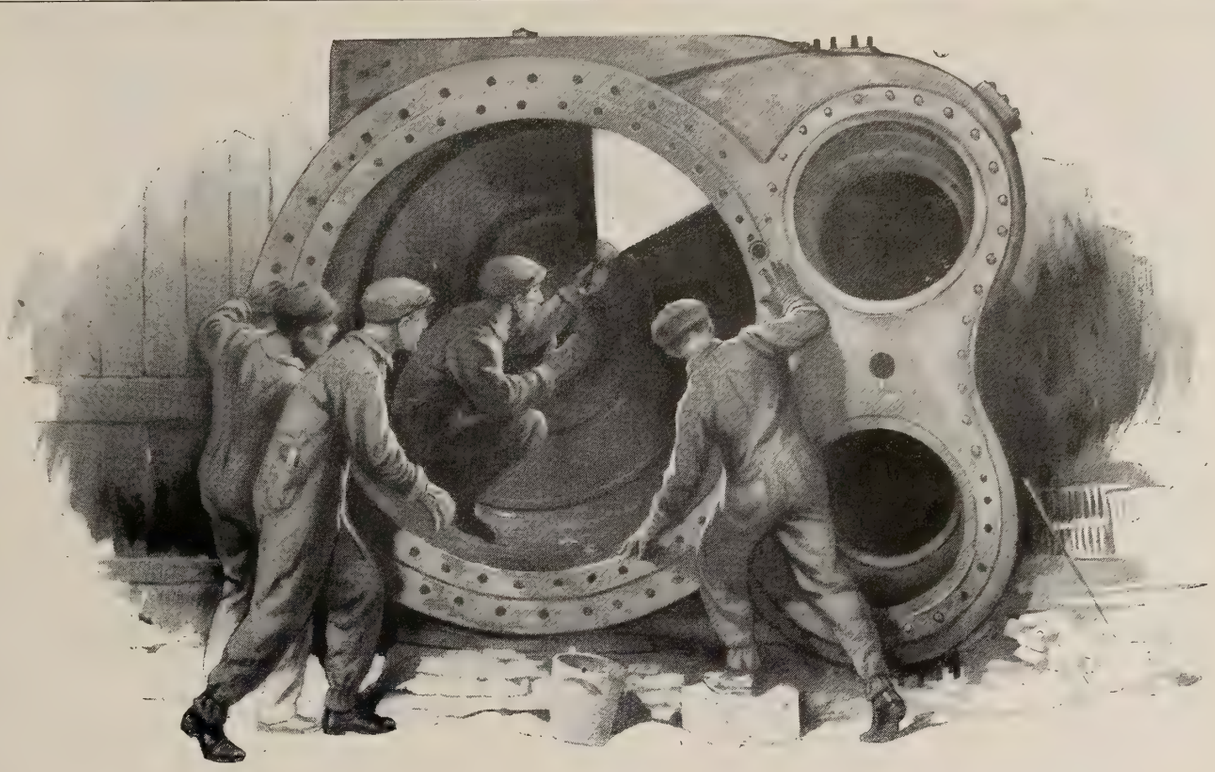
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LABOR VERY SCARCE IN BRITISH COLUMBIA

By Jas. B. Thomson
Jas. Thomson & Sons, Limited, Vancouver, B.C.

Skilled operators are very scarce and very hard to get. The minimum wage, which was set in September last, makes it necessary to pay girls for work of this kind $14 per week as a minimum. It is thought that possibly operators will be easier to get now that the labor market is replacing certain number of girls with men, but the great difficulty is that that class of operators are not skilled, and the minimum wage award has set such a high figure on apprentice help, *i.e.*, the sum of $11.00 per week, coupled with the fact that you are only allowed one in seven of this class of help, that it makes it very hard to recruit labor in the West.

Regarding raw material, there has been a shortage of this. In many instances we were forced to buy in the United States at higher prices than we should have had to pay were the Canadian mills in a position to make delivery of cotton piece goods.

We were successful in increasing our output to a certain extent, but not as much as we would like. The demand at all times for the product of our factory has been greater than we were able to supply, even though the prices, owing to market conditions, have had to be steadily advanced. At the present time the output of our factory hardly goes beyond the confines of the province of British Columbia. We have had some very tempting offers to export, but it has been impossible, owing to lack of both labor and material.

As to the future, indications at present are that the demand will be good for the coming year for the product of our factory in our own province, but we are constantly asked by merchants in other provinces, and also from Australia and New Zealand, to see if we cannot supply them with merchandise. What we need in British Columbia most is more skilled operators. Machinery for expansion we can easily get, and I think by importation we could readily obtain additional cloth, but there is not much encouragement to put in additional plant with such a scarcity of labor as exists. There are other lines we will manufacture when labor conditions change and we can get skilled employees, such as, particularly, women's garments and possibly cheaper line in men's ready-to-wear clothing. For the present we have to content ourselves with the manufacturing of shirts, overalls and mackinaw clothing.

CONDITIONS IN THE WHITEWEAR INDUSTRY

By J. B. McCarter
President, Eclipse Whitewear Co., Limited, Toronto

Our experience in manufacturing for the last two years has been difficult owing to the scarcity of labor and raw materials, and the demand has been so great that it has been impossible for us to take care of all business offered. In 1918 our output was the largest in our history to date, and in 1919 the Eclipse sold more goods from the 1st of September until the 15th of November than our entire output the previous year, forcing us to call our travellers off the road and refuse further business. Even if we were able to obtain more labor, it is doubtful whether we could do more business or make use of the extra help on account of the scarcity of raw materials. We have practically been forced to purchase all our cotton in the one market, England being out of the question, both in deliveries and in values; and the rate of exchange much against us in the United States. We have practically given instructions here not to purchase anything in the States, on account of their high exchange.

Regarding export business, we have been doing considerable in New Zealand, but have been compelled to recall all samples from that country, as we did not think it good policy

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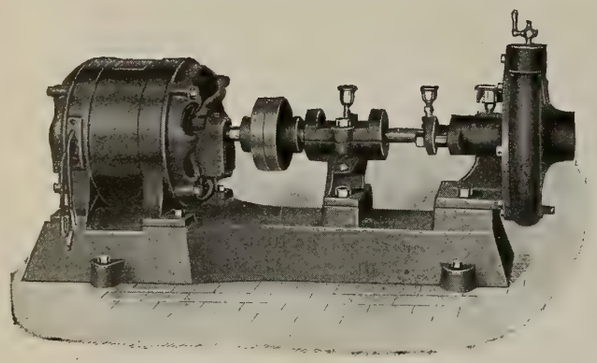
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to try to export under the conditions. We think it time enough to take up export business when we are in a position to supply our home country's demands. As far as the future is concerned, we see no likelihood of any change or easing up. We are at present making plans to carry on in 1920 and 1921 along the same lines as 1919 and 1920.

CLOTHING DEMAND LIKELY TO CONTINUE

By J. J. Greene

Managing Director, W. E. Sanford Mfg. Co., Ltd., Hamilton

Advances in wages, with steady employment, combine to make labor conditions with us more favorable at present than heretofore. The condition with regard to our raw materials continues difficult. Deliveries from the mills are slow and repeat orders almost impossible to place, and where possible, only at an advance. One mill advises us that they will take a season off in order to catch up.

We are enlarging our capacity by the building of a new factory, not only to increase our output but also to make conditions more favorable for our workers.

The demand for our product is good, particularly in the medium and better lines. With others we expect to be put strenuously to it to satisfactorily fill our coming season's orders. We cannot say that the trend of values is downward or even stationary. In many lines the direction is upward.

We have done a little export business, but find that the home demand is so large, skilled labor and the difficulties of procuring materials so great, that we feel we have to practically restrict our efforts to our own country.

As to the outlook, we are fairly optimistic. The needs of the consumer combined with the scarcity of raw materials and the difficulty of getting them would seem to us to indicate that a demand will continue which it will be for those who are able to do so to meet and supply.

OVERALL MANUFACTURERS HAVE DIFFICULTIES

By O. A. Matthews

R. G. Long & Co., Limited, Toronto

To make a long story short, we would state that the difficulty in securing raw materials is increasing every day, and the skilled labor in the needle industry has reached an acute stage. As far as the future is concerned, we would not venture an opinion because of the various elements of uncertainty both as regarding the procuring of materials and the problem of skilled labor.

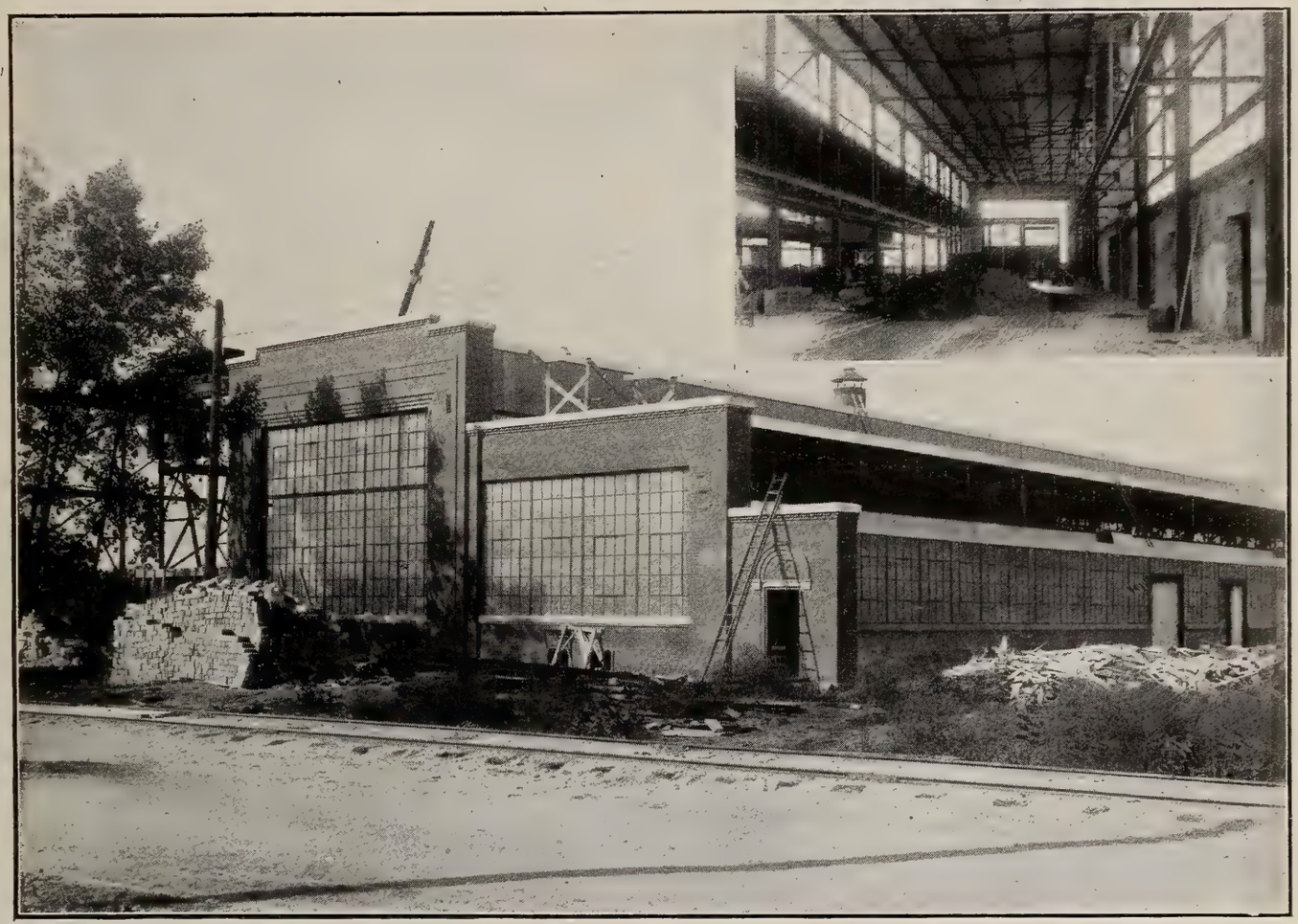
MEN'S NECKWEAR BUSINESS A RECORD

By A. T. Reid

President, A. T. Reid Co., Limited, Toronto

The demand for men's neckwear during the past year has been quite unprecedented owing mainly to two outstanding conditions: First, the great scarcity of silk materials because of lessened production; second, the increased and abnormal demand for neckwear caused by the return and demobilization of our Canadian troops. These two conditions, allied with the trade generally being particularly large in all branches and departments of commercial life, have made the year 1919 possibly the largest in volume and value in men's neckwear business of any previous year in the history of this country.

While in the retrospect these are the summarized facts, we have in prospect for the coming year the promise of a business, if not equally large, one that will prove to be among the best. Retail stocks are in no way heavy; indeed, through the inability of the manufacturer to fulfil more than 50 per cent. to 60 per cent. of the orders received, merchandise in the retailers' hands must be in greatly restricted quantities. We can at present see no reason why the demand for merchandise should not be equal to or approximately as



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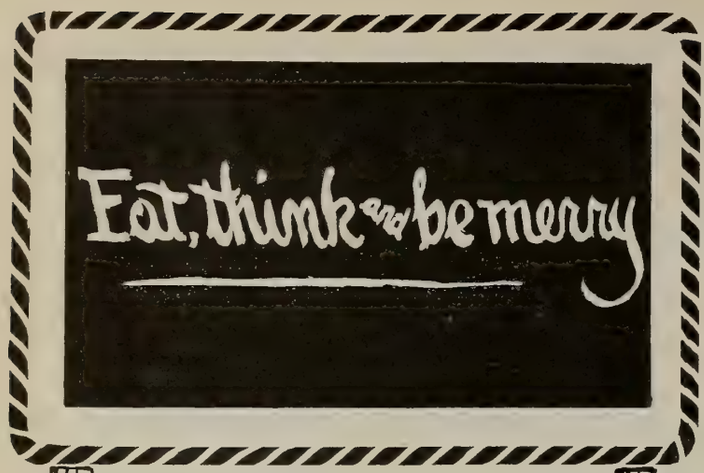
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good during the present year. This, of course, largely depends upon the maintenance of the present high rate of remuneration paid to all kinds of labor, and possibly a continuation of the tendency to spend to the maximum—a habit we will all agree none too wise but all too general.

In the minds of many the continued advance in the cost of all materials, such as silks, lining and other items that enter into the production of a finished tie, plus the abnormally high wages paid to operators, may bring the cost to the consumer to the point where he may hesitate to expend so much for what a few years ago would have seemed so little. As applied to men's neckwear, however, this will not occur unless in respect to its relation to other commodities of a kindred kind.

TRADE LOOKS FOR HIGHER-PRICED GOODS

By W. A. Brophey

Managing Director, Tooke Bros., Limited, Montreal

Our experience regarding labor in 1919 is that experienced labor is hard to get, and the young people coming in untrained do not seem to want to settle down and learn the business, as before the war, and will stay a few weeks only. Raw materials are scarce and prices advancing daily. Our production has been increased, but our present output does not compare favorably with a year ago, as we have had to put in more machines in order to secure a greater production.

The tendency of the trade is for higher-priced merchandise; we do not find the same demand for cheap goods as existed before the war. Market conditions are very satisfactory, as the demand for our merchandise is much greater than the supply. Export business has not been a factor with us; in fact not being able to look after the home trade, we have not gone after foreign business.

We size up the outlook for the coming year as good; in fact we think the big demand for merchandise will keep up for at least two years. Our present manufacturing facilities are totally inadequate to keep pace, consequently we are adding 15,000 square feet to our main factory; we are adding a storage building to our uptown factory, and we are opening up a branch factory in Longueuil, and we hope by these enlargements to be able to handle increased business.

DIFFICULT TO SUPPLY SHIRTS AND COLLARS

By F. W. Stewart

Managing Director, Cluett, Peabody & Co. of Canada, Limited

As regards labor, conditions have been satisfactory except that we have not been able to secure all the operators which we require for our plant at St. John's. We have not suffered from supply of raw materials, and general operating conditions have been fairly satisfactory.

Our production for several months past has shown a marked increase over last year, the tendency being a demand for a better quality of goods, and it has been very difficult to satisfactorily supply the demand for goods of the highest grades. We have not accepted any export business, and we have been using our efforts to supply the demand from our own market.

From the present outlook, it appears that the demand is likely to keep up for some time to come, as it will likely be three or four years before we are in a position to catch up with the normal demand from our production, and build up our depleted stocks. It is doubtful if manufacturing facilities will be adequate to keep up with the demand during that length of time. To assist us in taking care of this situation, we have opened a small auxiliary plant in St. John's for manufacturing collars, and we are also opening up branch factories at Sherbrooke, for collars, and Montreal, for shirts.

It would appear at the present time as though the supply of cotton materials during the next year or two will be very

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limited, owing to the enormous demand which is now being put upon Great Britain for these goods from all parts of the world, and it does not appear as if the U.S. and Canada will be able to assist very materially in taking care of this demand, as our home markets will likely tax our industries to the limit for some time to come. Prices of cotton materials have been advancing very rapidly, and consequently our product for the next year or two must be priced higher than at any period previous to this date.

HAT MANUFACTURERS VERY BUSY

By Gordon C. Crean
Robert Crean & Co., Limited, Toronto

We have found labor, especially female help, very scarce, and raw materials scarce and dear. Demand for our goods has been very heavy, and we find the demand running to the higher grade goods, especially made-in-Canada velours. We have done some exporting, but had to cease, as we could not take care of our own market. We hope when we can increase our output to be able to again resume export business. We expect for the next six or seven months to be running to our utmost capacity. We have already enlarged our capacity by about 25 per cent. and are contemplating a further extension.

CORSET PRODUCTION BEHIND THE DEMAND

By Crompton Corset Co., Limited, Toronto

Labor conditions with us are the principal drawback, as we are only able to manufacture about half the quantity which we could dispose of if we had a sufficiently large staff. We have been fortunate enough to obtain sufficient materials, but, of course, cannot say how long this will continue, as the mills appear to be completely filled up with orders, and are very backward in accepting new business. It is practically impossible for us to import very much of the staple lines in materials owing to the condition of affairs in the United States, where they appear to be even worse than we are here, as far as the corset business is concerned.

CARPET PRODUCTION ON THE INCREASE

By H. Quarmby
Guelph Carpet & Worsted Spinning Mills, Limited, Guelph

We find that we are unable to secure an adequate number of skilled operatives, although the soldiers who recently returned have made labor conditions rather easier. Raw materials are extremely difficult to secure in large quantities, and wages are about 25 per cent. higher than they were twelve months ago.

In our carpet department, for the two months Oct. 1st to Nov. 30th, our production was 27.50 per cent. greater than in the same period last year; in the worsted spinning department the production is stationary.

High-class goods are greatly in demand, and prices have an upward tendency.

We look for two or three years of good trade, as the world is short of all kinds of goods, but we think that with the many additions being made to factories, Canadian manufacturers will be able to supply the requirements of the country within a short time. We are making an extensive addition to our worsted spinning plant which, when completed, will double our yarn production.

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Building Materials

DOUBLED OUTPUT OF BRICK IN 1919

By F. B. McFarren

General Manager, Interprovincial Brick Co. of Canada, Limited

We might explain that our company started operations in 1914, turning out our first brick just as the war commenced. Practically all construction work ceased and many brick manufacturers having large stocks to liquidate reduced prices to such a level that it was almost impossible to sell at a profit, and the demand was extremely limited. Fuel and labor, however, were plentiful and selling conditions gradually improved as many manufacturers closed their plants. During 1916, 1917, and 1918 the demand continued to improve, and as many of the plants were still closed down it became less difficult to dispose of the material produced. Fuel and labor became scarce and great difficulty was latterly experienced in procuring sufficient fuel and labor to take care of the requirements. At times the car supply was inadequate and constantly increasing freight rates made the distribution of manufactured goods increasingly difficult in various markets. We believe the rate increases have been greater in proportion on brick and clay products than on almost any other commodity.

During 1919, we found it necessary to double our output to cope with the demand, and while wages have considerably increased, we have found it easier to secure sufficient labor.

During the period outlined, wages have more than doubled and the price of fuel is also more than double, consequently necessitating increased prices. The cost of buildings and kilns has also more than doubled during the period and many manufacturers of brick have discontinued operations and in view of the greatly increased cost of new construction and increased working capital required, we believe that it will be a considerable time before production is back to the pre-war basis.

While a large amount of work has apparently been postponed due to the increased cost of construction, there has been a great shortage of houses, which has necessitated a large amount of housing construction, and there appears to be a great deal of larger work contemplated for the coming season. At present we find that the demand for our product is much greater than the supply and we are constantly adding to our capacity.

HIGH BUILDING COSTS AFFECT CEMENT INDUSTRY

By F. P. Jones

General Manager, Canada Cement Co., Limited, Montreal

Manufacturing conditions are, at present, in most localities very difficult, not so much on account of the scarcity and high price of labor, but because labor is not producing the same per hour as it did prior to the war. Raw materials are as a rule very high priced and difficult to get. General operating conditions are of necessity affected by the above, namely, not getting the same production per hour as we did, and difficulty of obtaining raw materials. Output has decreased as the demand for our production has not been good during the past four years.

Demand for our product is poor, mostly on account of the cost of building to-day, which is a consequence of the high cost of labor. A large number of buildings of all classes and kinds, besides a large amount of construction work, roads, etc., are required in the country, and undoubtedly, business would be good if people could get a reasonable return on capital expenditure, but the writer is not optimistic regarding the future, because he does not believe these capital expendi-

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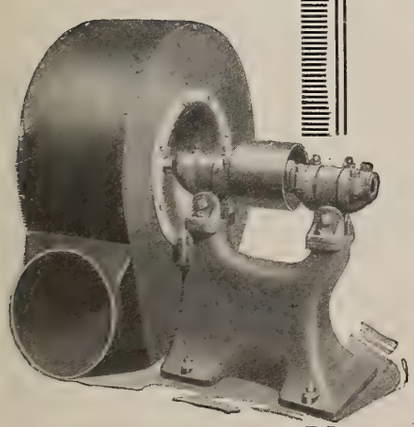
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tures are justified until conditions are such that a man spending $100 in labor, will be able to get $100 in work done.

Values have not in our line gone up as much as in most of the others.

The export field is very attractive, but difficulties are: (1) Lack of ocean tonnage; (2) Irregularity of sailings; (3) In our business, the difficulty of obtaining suitable package.

The outlook for the next few months in our business is not encouraging. We have not enlarged any of our plants, and have not been running for the past four years at more than 33 per cent. of our capacity. We have not introduced any new lines.

DEMAND FOR CEMENT REPORTED GOOD

By John G. Lind
General Manager, St. Mary's Cement Limited, St. Mary's

Manufacturing conditions during 1919 have been fairly good with us. We have had no labor trouble; the transportation companies have furnished us with plenty of equipment, and we have increased our output by about twenty-five per cent. Regarding marketing conditions will say that the demand for cement has been exceptionally good. The price at our mill dropped 10c. per barrel last March. We are not properly situated for export business. The outlook for 1920 business, we expect, will be good. Cement is a low class commodity carrying a high freight rate, and the conditions make it more economical to operate smaller plants near strategic centres.

DEMAND FOR BABBIT METALS INCREASES

By G. F. Allen
Manager, Hoyt Metal Company, Toronto

We have had no trouble whatever with labor. We have not a great number of employees so it is an easy matter to adjust things in our plant. We have increased our output considerably. The demand for our product, Babbitt metals, etc., and kindred lines has been very great last Fall, and we have done the largest business in the history of the Company.

We believe 1920 is going to be a big year—the biggest in our history, provided of course general strikes do not occur all over to upset trade conditions. As far as exporting is concerned we do not export from this plant, except to Newfoundland. Other export business is taken care of by our London office.

DEMAND FOR ROOFING RATHER LIMITED

By J. O. Thorn
General Manager, Metallic Roofing Co. of Canada, Limited

Labor, speaking generally, has been costly and rather inefficient. Raw materials have been very high in price and difficult to obtain. Transportation has been rather slow and unsatisfactory, and has advanced 40 per cent. in cost. General operating conditions have been rather more difficult than usual. The output, however, has been increased, although the output per man shows a dcrease, owing mainly to lack of skill and want of energy.

The demand has been rather limited owing to high prices, cost of transportation, shortage and high cost of labor for constructing buildings. The export business has been seriously interfered with by war conditions.

The outlook, so far as business in Canada is concerned, appears to be fairly good, but raw material is very high in price and exceedingly difficult to obtain.

The cost of production is abnormally high, all of which has a tendency to check sales.

We have not enlarged our capacity, because during the war we have been unable to operate more than 50 per cent. of our capacity, but we have in view making extensions, providing raw material can be obtained and that labor conditions are reasonably satisfactory.



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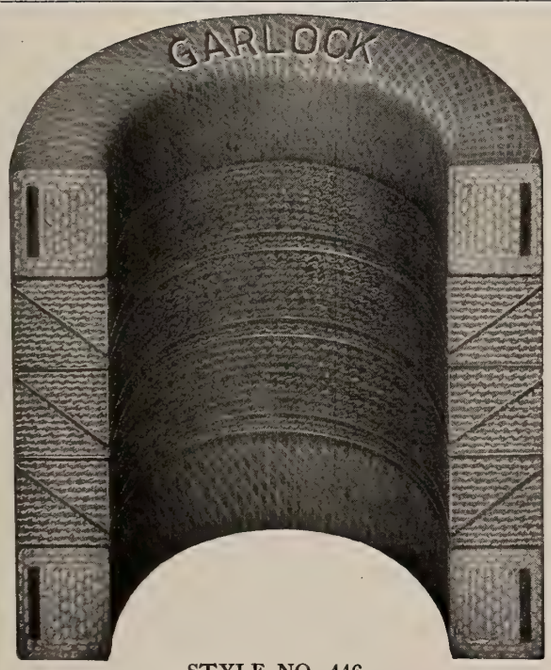
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Miscellaneous Industries

PULP INDUSTRY IN PROSPEROUS CONDITION

By Quebec Manufacturer

Our experience has been that we have had sufficient labor to carry our industry along to full capacity. There has been more or less unrest, the same as other plants have experienced, but nothing serious. Raw materials of all kinds are very high, in some cases almost impossible to procure. Transportation to some points has been entirely satisfactory. To other points, where foreign cars were required, it has been rather difficult at times. Climatic conditions have been entirely satisfactory. We have increased our production very materially during the last six months.

Tendencies in the market for pulp and paper have been upward, in regard to both demand and prices. The marketing conditions have been extremely good. Our experience in the export trade has been that we could have increased it, had we had the goods. Owing to the strong home market we have been unable to increase our export trade.

The paper and pulp industry looks to be in an extremely prosperous condition for the next few months. There will be no trouble regarding distribution. The only difficulty will be in getting sufficient production to distribute. The production of newsprint will be very much increased within the next 18 months, as several hundred tons per day of new capacity will be on the market.

The paper and pulp industry, we consider, is in a very stable condition, and will be for some time to come, and, furthermore, will be on a very profitable basis, the factors contributing to same being the natural increase in the use of paper from year to year, and the fact that no mills were constructed during the war period.

ANTICIPATES BIG YEAR IN 1920

By Wm. R. Vendall

General Manager, Richards-Wilcox Canadian Co., Limited, London

If the money market holds together, we expect 1920 to be the biggest year Canada has ever seen in the output of manufactured goods. The only obstacle in sight seems to be a question of capital, whether there is sufficient money available to finance the needs of the world on the present price basis.

We are enlarging our output constantly, and have further factory extensions in view for spring. We feel that it is incumbent upon Canadian manufacturers to strain themselves to the utmost to produce in Canada as large a percentage as possible of the goods consumed in Canada, and something additional for export trade, and with that idea in view, we are constantly adding to our line items which have been coming in from the States.

In our view, the thing that requires the greatest attention at the present time is to secure the fullest possible co-operation of all our industrial forces, to remove antagonisms and get everybody pulling together for the common good.

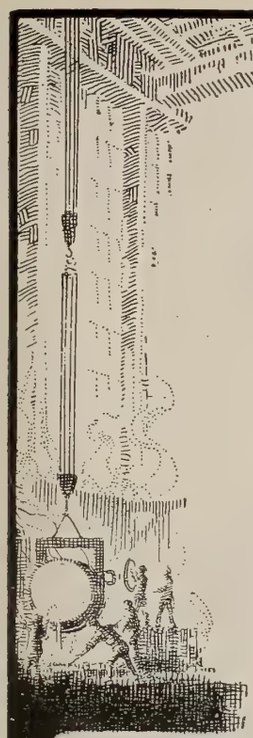
DEMAND FOR GOODS SOMEWHAT REDUCED

By F. H. Hopkins

Managing Director, Dominion Wire Rope Co., Ltd., Montreal

We have not increased our output. The demand for our class of goods since the armistice has been very materially reduced, and the demand at present is only about 50 per cent. As regards labor, we had our first trouble during the past year. So far as raw materials are concerned, conditions were a little better in obtaining deliveries.

The class and kind of goods being called for are about as formerly and the value has been materially reduced. We



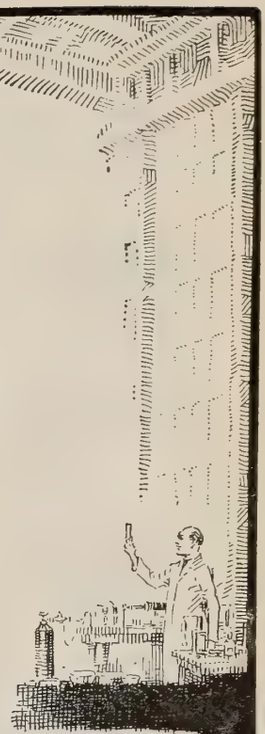
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JARDINE
Canadian Giant Power Hammer



There is nothing like it for rapid and accurate production of light to medium forgings.

No. 25 forges up to 2" stock.
1½ Horse Power drives it.
Weight 825 lbs.
Price $171.00.

No. 50 forges up to 2½" stock.
2½ Horse Power required for heavy work.
Weight 1,750 lbs.
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STRUCTURAL STEEL
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BRIDGE BUILDERS



We build and erect all kinds of Structural Steel, Bridges, Roof Trusses, Bank and Office Railings, Stair Work, Elevator Grills, Fire Escapes, etc.

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Beams, Column Sections, Angles, Tees, Plates, Bars, Checkered Floor Plates, etc.

McGregor & McIntyre, Limited
1139 SHAW ST. TORONTO, CAN.

have not been able to get into the export field on account of both English and U.S.A. advantages over us by facilities of shipping and larger stocks on hand.

We believe that the tendency for the next few months will be more satisfactory, as the general feeling is that stocks can be replenished in place of holding off for better prices. We are not enlarging our plant, as we find we have much more capacity than the present demand warrants. We have not added any new manufacturing lines.

GRINDING WHEEL BUSINESS GROWS

By G. R. Harvey
President, Hart Wheels Limited, Hamilton

Labor conditions have been satisfactory as to the number of men obtainable, but as a whole they are not as efficient. Raw materials have been available but the price has been on the average 10 per cent. higher than a year ago. We have not increased our output owing to lack of orders.

The demand for our goods seems to be increasing, with the trend of values upward. We have a good deal of correspondence *re* export trade and are sure it will lead to some good business. As the grinding wheel manufacturers in the United States are at present as busy as they were during the war, and as a result of the present high exchange rate, we expect to receive a considerable volume of orders which formerly went to U.S. firms.

We have enlarged our plant and could take care of four times our present business. We have also introduced a new line of mower knife hand files and the sales of these are very encouraging.

DISCONTINUE MAKING LOWER GRADES OF CARPET

By Ontario Manufacturer

We have experienced difficulty in obtaining labor, and what we have had has been far from satisfactory. Raw materials have always been procurable, of course, at greatly advanced prices; but receipt of same has often been delayed and quantities curtailed.

Our production in yardage is slightly less than that of a year ago, but the value of same has considerably increased. We are running at about 60 per cent. of our capacity. We have almost discontinued the making of lower grades, the demand for same having fallen off. We could have easily booked 50 per cent. more business than we have accepted.

We have never been exporters, though we have been offered, during the past six months, good orders from Australia, New Zealand, South America, and some even from the United States.

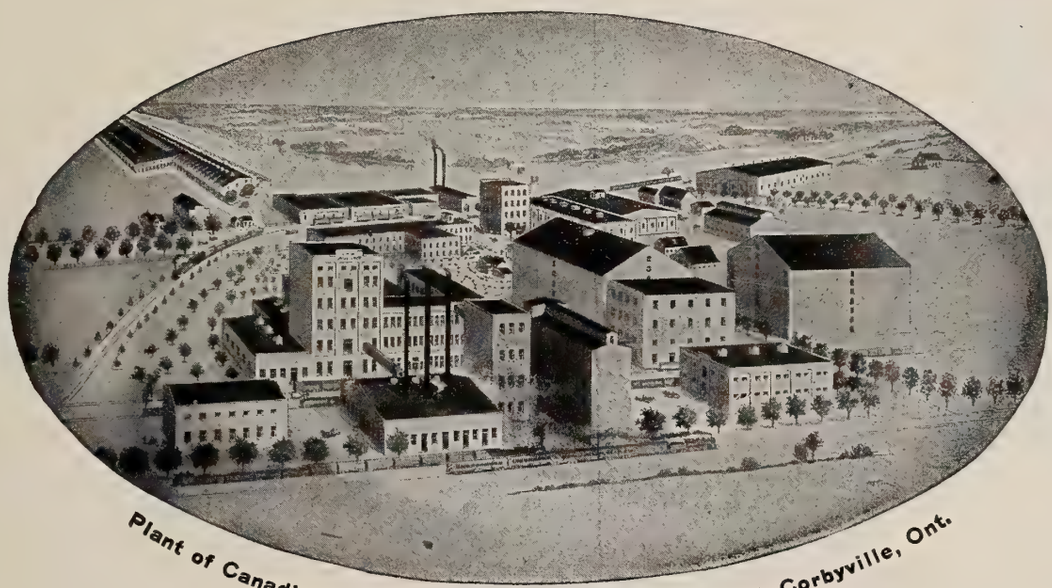
As to the outlook, retailers' stocks are not large. Small buyers are quite conservative in their estimate of future requirements, but the larger dealers, and those who generally size up the situation best, have placed large orders, and are anxious to place still further for delivery as far off as 1921. It looks very much as if the British manufacturers will be able to deliver a fair amount of goods next year. They are quoting prices which compete with ours. I do not think that dealers will be able to obtain their full requirements during 1920. We have considered, quite frequently, the enlargement of our plant, but in view of difficulties, chiefly relating to machinery, we have not decided on anything as yet.

DEMAND GROWS FOR EFFICIENT TRUCKS

By Four Wheel Drive Auto Company

We have just commenced the erection of our factory here and therefore cannot give you much information as to manufacturing conditions as yet. We might say, that the demand seems to be growing very quickly in Canada as it has grown in the States for a high grade and efficient truck, rather than a cheap made up article, or a small cheaply made truck

ALCOHOL



Plant of Canadian Industrial Alcohol Company Limited, Corbyville, Ont.

With a capacity of 450,000 (proof) gallons per month we are the largest producers of Alcohol in Canada.

Manufacturers of vinegar, perfumes, essences, pharmaceutical preparations, etc., are invited to write us for prices of Alcohol suitable for their particular line of business.

We make a special feature of contracting for the requirements of manufacturers for the year or season, thus providing not only a uniform cost but also a steady supply as needed.

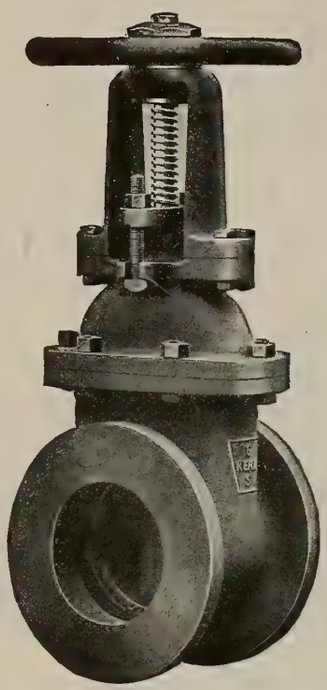
Those who are using Duty Paid Alcohol in their manufacturing processes would do well to consult us with a view to using it "In Bond," thus avoiding the use of two-year-old Alcohol. Under the rules and regulations of the Department of Inland Revenue, newly made Alcohol may be used "In Bond." This Alcohol is much cheaper than two-year-old.

METHYLATED SPIRITS or Denatured Alcohol is sold only by the Department of Inland Revenue, Ottawa, Ont., but any other kind of Alcohol may be secured from us.

CANADIAN INDUSTRIAL ALCOHOL COMPANY LIMITED

MONTREAL, QUE.

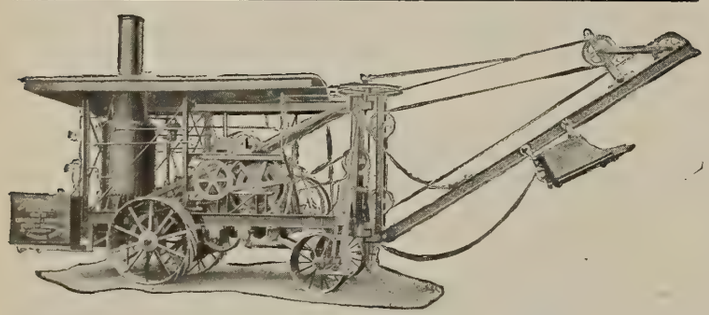
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Good roads movement finds a splendid abettor in this 12-ton Traction Excavator. Replaces 30 to 100 men. Boom 18 ft. gives big working radius. Has the strength to handle any material. Big range of working possibilities but road work is Keystone's forte.

Send for Illustrated Bulletin

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St. Catharines Ont.

Eastern Sales Office :
Hall Machinery Co., Sherbrooke, Que.

which will not last very long. Our experience seems to be that even small users of trucks, who have the load to haul, are buying trucks more as an investment than as a temporary make-shift.

Our truck is a high priced article, but prospects look brighter for it than they have ever looked since we have started in Canada. The tendency seems to be for a better built truck, consequently a higher priced truck, and in our particular case on account of the four wheel drive principle the demand is much greater. We expect to need more space next year and are already figuring on an extension to our present premises which are being built.

BRITISH COLUMBIA LUMBER
From Vancouver Province

Over sixty-two million feet of lumber was shipped from mainland mills to foreign ports during 1919. In the preceding year the mills sent out by the sea route a total of over fifty-three million feet. This was thirty-five million better than the total of 1917. So the export lumber business has grown in British Columbia during the past two years.

In 1918, a fleet of fifty-one deep-sea ships took 53,403,089 feet of lumber to points in South America, South Africa, Asia, United States and Europe. Last year, fifty-four deep-sea ships left Vancouver with full or part cargoes of lumber. When it is borne in mind that 154 deep-sea ships sailed outward through the First Narrows during the year, it will be realized that the lumber business has played an important part in Canadian exports from Vancouver. Twenty-eight cargoes have gone from mainland mills to the United Kingdom, with a grand total of 40,381,235 feet. Eleven cargoes have gone to China, totalling 11,879,000 feet. Three ships for Japanese ports carried part cargoes reaching over a million feet.

The trade with South America, South Africa, Australia, Fiji and Siberia fell off, but the United States and the United Kingdom made gains, the latter showing up tremendously. This is due to the big order given last spring. The following table gives a comparative idea of the variations of the market since the end of 1918:

	1919.	1918.
South America	55,000	4,231,000
South Africa	1,000,000	7,000,000
China	11,000,000	18,000,000
Australia	4,470,000	6,000,000
Fiji	.....	500,000
Japan	1,150,000	500,000
United States	3,799,000	2,250,000
United Kingdom	40,381,000	14,000,000
Vladivostock	.....	113,000

As stated before, there were twenty-eight cargoes to the United Kingdom from Vancouver, and eleven to China. The other markets received as follows: Japan, 3; Australia, 7; United States, 3; South Africa, 1; and South America, 1.

The cargo of the s.s. *Admiral Goodrich*, with lumber for San Pedro, is included in the above figures.

The chief exporters have been the Canadian Robert Dollar Company, the Hastings Mill, and the B.C. Timber Exporters. Large quantities of lumber were also shipped from Vancouver Islands mills.

Below are the full figures by markets:

United Kingdom	40,381,235
China	11,879,000
Japan	1,150,000
Australia	4,473,000
United States	3,799,513
South Africa	1,000,000
South America	55,000
	62,737,748

THE AULT & WIBORG COMPANY
OF CANADA, LIMITED

With four factories in Canada, and a chemist at the head of every department, is thoroughly prepared to look after your requirements in:

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DRY AND PULP COLORS
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COLORS IN OIL AND JAPAN
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WATERPROOFING MATERIAL

ADDRESS US AT ANY OF THE THREE CITIES

MONTREAL TORONTO WINNIPEG

Automobile Manufacturers Overcome Difficulties

By H. S. PRITCHARD
Ford Motor Company of Canada, Limited

OUR experience of manufacturing conditions in respect of supply and efficiency of labor has been, that the supply has been adequate for our needs. We regret that efficiency has not always been commensurate with the wage. We believe in this respect, however, we are more fortunately situated than a number of other manufacturers.

Our experience in connection with the supply of raw materials has been that their supply has been extremely erratic. Throughout particularly the last three years of the war, we were practically at all times living from hand to mouth in respect of materials. This was largely due to the feeling on the part of those in control of the distribution of raw materials that the automobile was a luxury, and therefore to be supplied after the manufacture of necessities. As you know, it came down to a point just prior to the armistice, where, after Jan. 1, 1919, the automobile manufacturers of U.S. would have been definitely cut off from any supplies except those necessary to manufacture war materials. We apprehended here that we also would be cut off, as considerable of our raw materials come from the U.S. The armistice, however, intervened, and we obtained a new lease of life. We found, however, stocks of raw materials in such a depleted condition due to the war-time conditions that we were unable to accumulate any stocks throughout the year of 1919, and during that whole year also we were practically working under the same conditions as prior to the armistice. We were forced to pay great deal higher prices, and to, in numerous instances, get these supplies in by express in order to keep our men working.

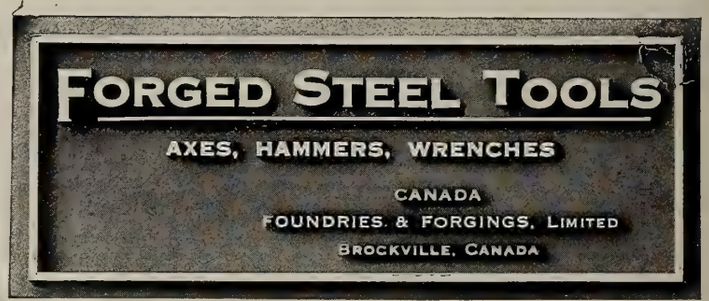
This was the condition existing at the time of the steel strike, and this strike aggravated the condition. We were able to obtain little or no steel from the U.S. We bought here, there and everywhere, and had men out all over the country buying and chasing it into our factory. The steel strike in reality was not concluded but simply petered out, and we were beginning to get some material in when the coal strike intervened and the situation looked hopeless, in that the steel manufacturers were not able to recommence operations.

It came to a point where we were simply operating from day to day. Particularly was this true just before Christmas-time, when we were trying to keep our men employed over the holidays. We have, however, kept our factory going throughout all these vicissitudes—not at all times at maximum, but we feel we have surmounted the worst of these crises, and that in the future the situation must improve.

As to the quality of raw material, it has been the experience of our factory, that the quality of this material generally has been far inferior. Parts of the Ford car, which have hardly ever been known to break, have broken owing to inferior materials, although these parts have been treated as carefully as formerly. Material also has been of such varying grades, weights, sizes, etc., as to make machine work very difficult. Especially has this been true of the iron used in cylinders, which has been so hard as to cause us immense difficulty.

All parts of the Ford car, with the exception of parts to the value of about $24.66, which are not purchasable in





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Twist Drills--- *"More holes with less regrinding."* Unconditionally guaranteed.

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MALLEABLE IRON
CASTINGS
HIGH TENSILE STRENGTH

GALT MALLEABLE IRON CO.
LIMITED
GALT - ONTARIO

Canada, are manufactured within Canada. All of these are not manufactured within our own plant. We have developed to a greater extent, the manufacturing of parts in our plant, taking over during the year under our own control the stamping plant of the Dominion Stamping and Forging Company of Walkerville, and now make our own stampings, such as frames and fenders. We have also taken on during the year the manufacture of electric-starting and lighting equipment for the Ford car—this being manufactured within our own plant. It is our policy to develop manufacturing within our own plant progressively and as quickly as space and conditions will permit. At the present time, our activities are limited by the housing conditions in this community.

We have not been able to increase our daily production during the past year. We did, however, convert a few more of the parts that we manufacture in our factory into cars. In the calendar year, 1918 we manufactured cars and trucks to the extent of 42,838. In the calendar year of 1919, we manufactured cars and trucks to the extent of 45,246.

The demand for Ford cars has increased during the calendar year just past. At no time during the past three years have we been able to manufacture enough cars in any given year to fill the demand. Of course, there may be certain seasons of the year when our manufacture is ahead of the demand, but in the winter dealers are placing cars in storage against the demand which will exist in the spring and summer months. At the conclusion of the year, however, we could always have sold a great many more cars than we were able to manufacture. This condition was somewhat more marked last year than the year previous.

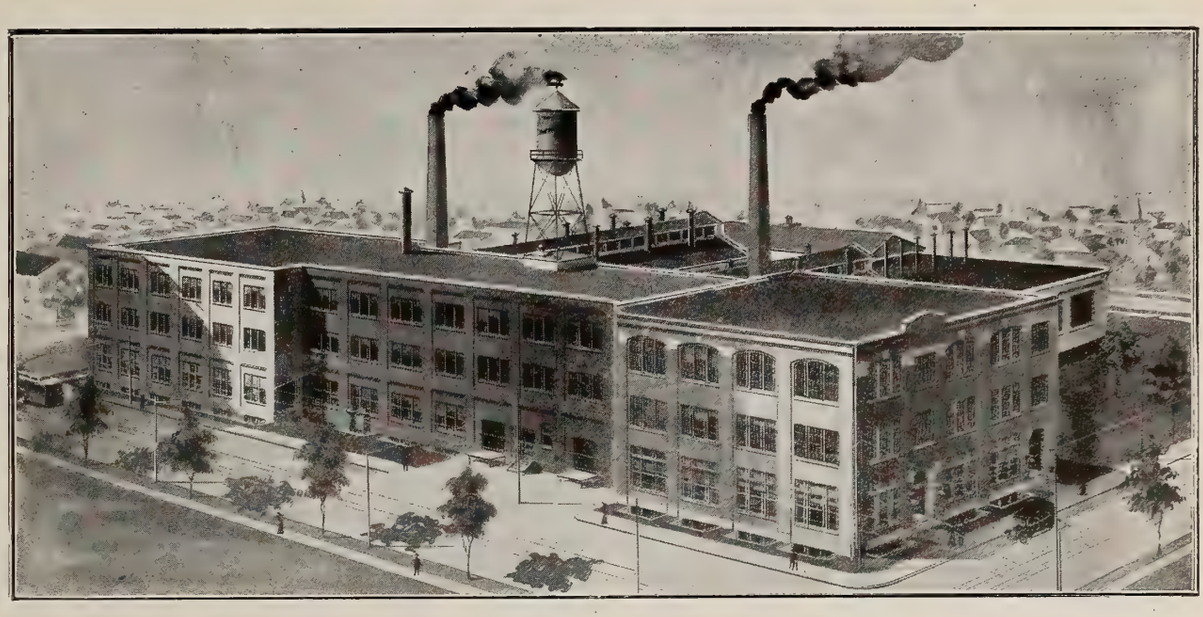
The style of car in request varies with localities. Our standard five-passenger touring car is the most popular car that we have, in that it appeals to the need of the greatest number. We notice, however, an increased tendency to buy closed cars, namely, our Sedan and Coupe model, particularly the Sedan model, which might be referred to as the closed five-passenger car.

In respect to price tendencies, the tendency on the part of the manufacturer has been for an increase in price. During the year, however, the price of all of our product did not change, although prices of raw material advanced considerably during the year, as did the exchange on Canadian funds.

On the part of the purchasing public, there is a tendency to be more liberal. Apparently the circumstances of the average buyer, particularly the farmer buyer in Ontario, Quebec, Maritime Provinces, and Manitoba, were so free, that price cut no great figure with them in the purchasing, as long as they got what they wanted.

Export business has been a considerable factor with us. Our export business is increasing. During our fiscal year from August 1st, 1918, to July 31st, 1919, we could easily have sold double the number of cars in export territory that we had allotted out of our production to our export territory. This allotment is over 22,000 cars, and we could very easily have sold over 40,000 out of a total anticipated production of 60,000 for the entire year.

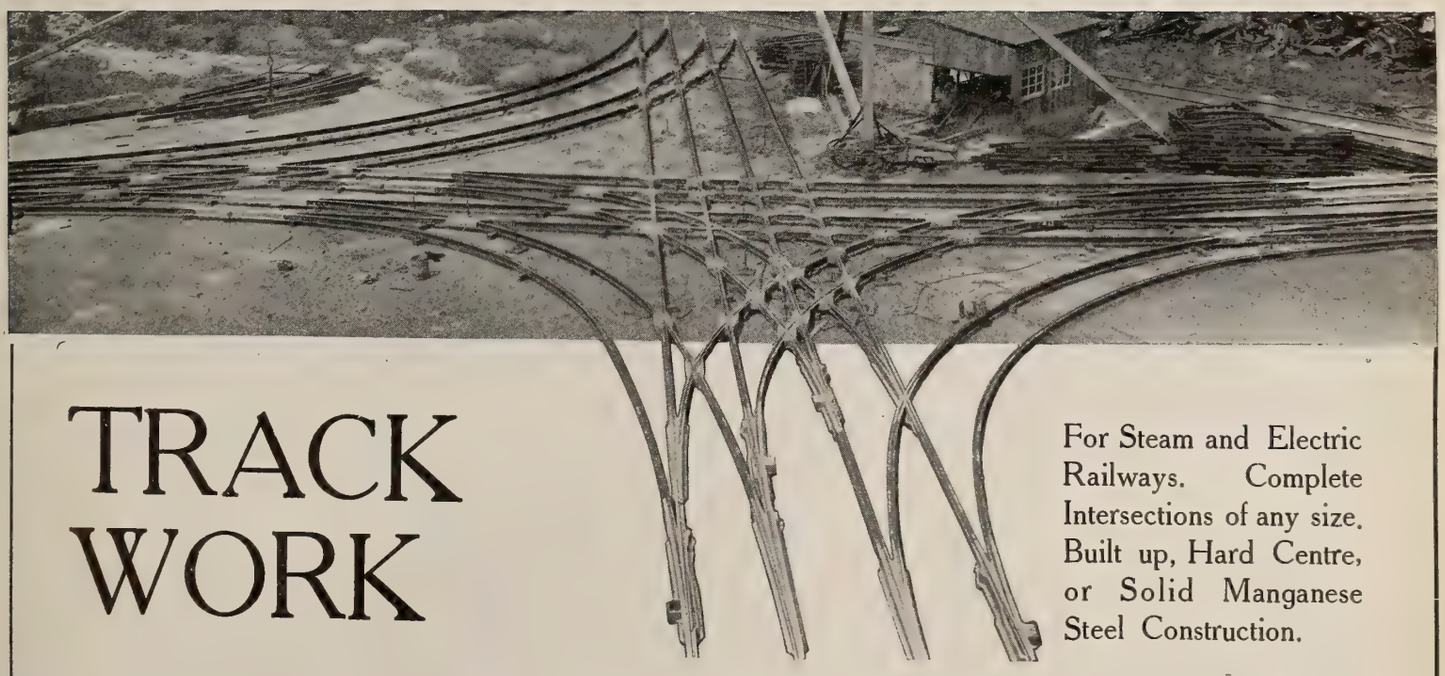
Our size-up of the outlook is, that the domestic demand will not only keep up, but will increase during the coming calendar year. In Eastern Canada there is agricultural prosperity generally. In Manitoba there is also this agricultural prosperity. Certain portions of Saskatchewan and Alberta are prosperous. These two provinces, however, are populated by such optimists that they are already anticipating crops that they will get during the coming season. They have had plentiful and beneficial fall rains, and their winter season has been such as to lead them to believe that their crop will be a successful one. British Columbia, in a car sense, is extremely prosperous.





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CANADIAN STEEL FOUNDRIES, LIMITED

TRANSPORTATION BUILDING, MONTREAL

CANADA'S INDUSTRIAL EXPANSION

Continued from Page 68c

Big New Plant Proposed

Canadian National Carbon Co., Limited, and Prest-O-Lite Co. of Canada, Limited, Act Jointly

One of the most interesting developments of the day is the proposal of the Canadian National Carbon Co., Limited, and the Prest-O-Lite Co. of Canada, Limited, to proceed at once with the erection of a large new manufacturing plant in Toronto. These companies have jointly purchased the westerly ten acres of the property at the south-west corner of Bathurst St. and Davenport Road in Toronto, and will build on this site two factories—one 80 x 400 feet, two storeys high, with a section 80 x 80 feet three storeys high, and the other 80 x 400 feet, two storeys high. The former will be occupied by the Canadian National Carbon Co., Limited, and the latter by the Prest-O-Lite Co. of Canada, Limited. A heating plant will be housed in a separate structure, 50 x 60 feet, and will have room for installation of additional boilers for future units to be added.

All the buildings will be of reinforced concrete frame, flat slab floors, mushroom type columns on twenty-foot centres, steel sash and brick curtain walls. Each building will have two freight elevators and all toilet accommodations and stairways will be contained in towers erected on outside of buildings, thereby removing any obstructions which might interfere with manufacturing operations.

Arrangement is provided for special rest rooms for female employees; shower baths, a dispensary with competent medical attendant to look after any injuries to employees; restaurant with modern equipped kitchen, in charge of a competent chef, where meals will be cooked and served to employees at bare cost. In fact, both companies propose to make the new plant a model of safety, convenience and utility for not only the owners but for its employees.

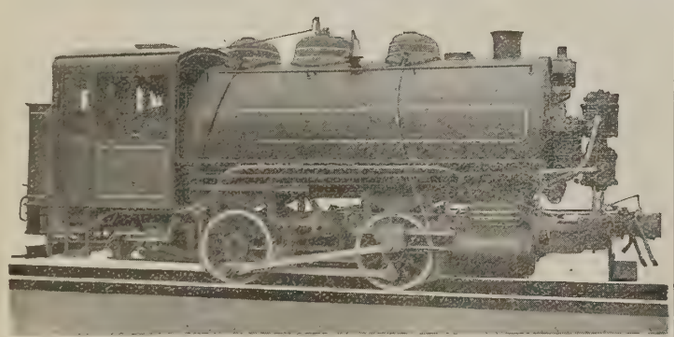
It is expected that the plant will be ready for occupancy in May, 1920, and everything possible will be done to get it ready by that time.

At the present time the two companies are operating five plants at different locations in Toronto, but owing to the large demand for their goods, have been unable to fill orders for some time past and propose now to get facilities which will enable them to take proper care of their customers.

R. H. Combs, who has been general manager of the Prest-O-Lite Company for the past three years, and who was also recently appointed general manager of the Canadian National Carbon Company, states that his companies expect to employ about five hundred people as soon as the new plant is ready to operate, and that the facilities provided by these first two units will take care of upwards of 700 employees if needed. "We have secured enough ground," says Mr. Combs, "to enable us to put up six such units as the two which are now being built, but before adding new units, both the present units will have a third storey added, as the buildings are being erected to carry three full floors."

In addition to the large plant described above, Mr. Combs states that the company will erect in the spring, a new ace-

PUT YOUR PROBLEM UP TO US



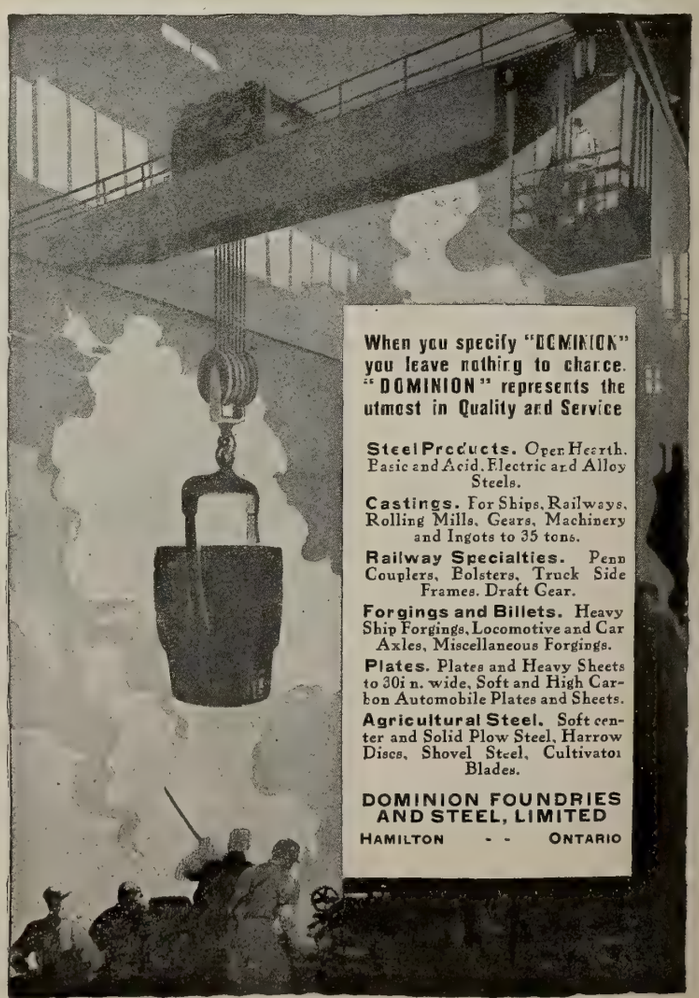
We are specialists in building locomotives. We build all types and sizes, also all kinds of repair parts for locomotives and tenders.

Our experience puts us in a position to give you expert advice as to what particular type and size of locomotive is best suited to your needs.

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ELEVATED STEEL TANKS
For Municipal, Railroad and Factory Service

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SHAPE—Round, Square, Oval, Triangular, Etc.
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ELECTRIC STEEL CASTINGS

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Forging Ingots, Etc.

Write for prices and particulars

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Made in Canada

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263 NOTRE DAME STREET WEST, MONTREAL

tylene gas plant in Toronto or immediate vicinity, to take care of the greatly increased demand for compressed Prest-O-Lite gas for welding and cutting, and that a large new storage battery warehouse and assembly plant will be erected at Winnipeg.

The contract for the new plants has been awarded to Wells & Gray, Limited, Toronto, and the company have specified Canadian-made cement, reinforcing rods, brick, sash, boilers, elevators, electrical equipment of all kinds, machinery materials and equipment. The company certainly deserve credit for their determination to provide work for Canadians and to practise the made-in-Canada doctrine.

Ink Company Expands

Reliance Ink Co., Limited, of Winnipeg, Extends Scope of Its Manufacturing Program

Notice is given in the *Manitoba Gazette* that the authorized capital stock of the Reliance Ink Co., Limited, Winnipeg, has been increased from $20,000 to $40,000. This has been done in order to finance certain plant extensions, etc. An addition to their factory has been built, which gives two and one-half times the former space. The company are also extending the scope of their manufacturing facilities particularly along the line of adhesives in bulk, such as envelope gum for envelope manufacturers, label paste for bottlers and padding glue for the printing and bookbinding trades.

Enlarging Four Breweries

National Breweries, Limited, Montreal, Will Spend Large Sum on Plant Extension

Four of their nine breweries are being extended by the National Breweries Limited, of Montreal, three in Montreal and one in Quebec. The capacity of each will be more than doubled at an expense of approximately $17,500,000. Owing to the unsettled conditions in the brewing industry during the last five or six years, nothing had been done in this direction, the only effort made being to keep plants in up-to-date condition without enlargement. When the present building programme is complete, the company will have four of the most modern and efficient brewery plants possible and will be in a position to handle any business offered.

Important British Connections

The Bawden Machine Co., Limited, to Manufacture Products of Several English and Scotch Firms

One of the most important developments of late in Canadian industry is the announcement that the Bawden Machine Co., Limited, Toronto, had entered into arrangements for the manufacture and sale in Canada of the products of the following English and Scotch firms: Alley & McLellan, Ltd., Glasgow, Scotland; Robey and Co., Limited, Lincoln, Eng.; John Thompson, Limited, Wolverhampton, Eng.; David Bridge & Co., Limited, Castleton, Manchester, Eng.; E. S. Hindley & Co., Limited, Bourton, Dorsetshire, Eng.; Brown Bros., Limited, Edinburgh, Scotland; and Bow, MacLachlan, Limited, Paisley, Scotland.

These companies are supplying the Bawden Machine Company with complete drawings of all their lines, together with engineering data, so that in case of breakage on any machines which have been or will be imported into Canada the Bawden Machine Company will be able to manufacture the needed repair parts without delay.

Alley & McLellan, Limited, manufacture air compressors, valves and waterworks supplies, and are already well known in many parts of Canada. Robey & Co., Limited, make a line of semi-Diesel oil engines, which should meet with good de-



Cut of 60-inch "Extra" Double Belt
Made by The J. C. McLaren Belting Co., Limited.

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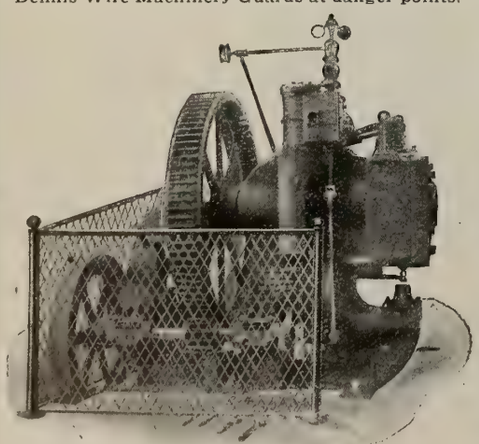
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were reported in one year by the Workmen's Compensation Board.

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mand in Canada; and also manufacture steam engines and air compressors and mining machinery.

The Thompson water-tube boiler is new to this country, but has been sold widely in Great Britain, South America, Africa and India, where the company has direct representation. John Thompson, Limited, also manufacture corrugated furnaces. Bridge's friction clutch is known in Canada, as is also this firm's rubber and textile-working machinery, which they have been manufacturing continuously for fifty years.

Brown Bros., and Bow, MacLachlan, Limited, are manufacturers of telemotors, steering gears and steamboat auxiliary machinery. E. S. Hindley are well-known makers of high-speed steam engines.

More Storage Room

Paint Manufacturers Find it Necessary to Secure More Space for Storage Purposes at Plant

A new warehouse, which will contain about 12,000 square feet of floor space, has been erected by Benjamin Moore & Co., Limited, manufacturers of muresco, paints, colors and varnishes, West Toronto. The erection of this building has been necessitated by the rapid growth of their business. Up to the present they have done practically nothing with regard to export business on account of the extraordinary demand for paints in the home market. However, with the erection of this new building and the installation of new machinery they hope to be able to go after some of the export business now offering.

Soap Manufacturers Expand

Lever Brothers, Limited, Toronto, are Marking a Large Addition to Their Plant

Feeling themselves greatly cramped in their present plant, Lever Brothers, Limited, Toronto, manufacturers of Sunlight, Lifebuoy and other well-known brands of soap, have started the erection of two large new buildings. These are three-storey structures, approximately 140 feet long by 80 feet wide, and they are being erected simply to take care of the ever-increasing demand for the company's products.

Four New Machines

Wayagamack Pulp & Paper Co., Limited, Three Rivers, are Making Preparations to Enlarge Their Capacity

Official announcement is made that the Wayagamack Pulp & Paper Co., Limited, Three Rivers, Que., are proceeding with the installation of four new paper machines. This involves the erection of new buildings to house the machines, and the necessary beating and finishing equipment to go with them. The company are also putting in an additional steam plant. They expect to have the first paper machine ready for operation by July 1st, and the others will be installed as rapidly as possible after that date.

Now Manufacturing Trucks

Eastern Canada Motor Truck Co., Limited, have Started Production at Their Factory in Hull, P.Q.

Eastern Canada Motor Truck Co, Limited, have just completed their factory building in Hull, Que., and expect to have their first trucks ready before the middle of February. The company is entirely Canadian and financed by Canadian capital. The officers are as follows: President, Mr. A. K. MacCarthy; Vice-President and General Manager, Mr. G. Gordon Bell, (D.F.C., Legion of Honor, and Croix de Guerre, late Capt. in the Royal Air Force); Secretary-Treasurer, T. W. MacDowell, (V.C., D.S.O., late Major in the C.E.F.); Sales

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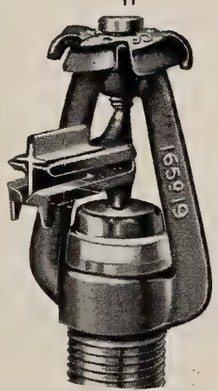
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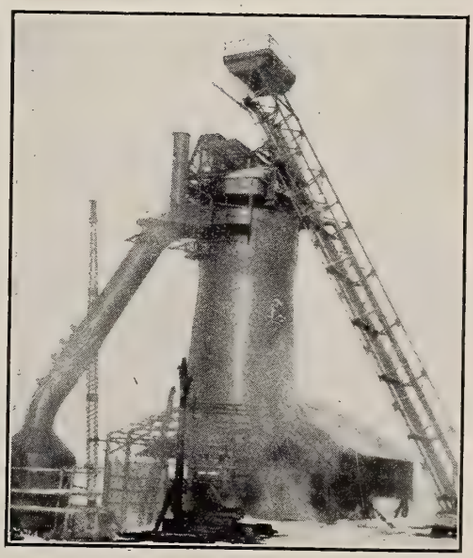
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When Canadian Materials are Available at Lower Prices

STINSON-REEB BUILDERS' SUPPLY CO., Limited - MONTREAL

Manager, Mr. J. M. Taylor. The Directors of the Company are: Messrs. T. F. Ahearn (Director Ottawa Electric Railway and Ottawa Car Mfg. Co.); F. E. Bronson (Man. Director the Bronson Co., Ottawa); G. S. MacCarthy, M.D., Ottawa, and Thomas Arnold, Montreal (Pres. Taylor & Arnold, Pres. Manitoba Steel Foundries, Winnipeg, Director Chadburn Telegraph Co. of America, etc.).

The company are specializing for this season on a two-ton model called the Veteran truck, although they are equipped to handle orders for larger sizes. The company's engineers have had years of experience in U. S. truck factories, supplemented by experience in France and Gallipoli with transports where practically every make of truck was represented, and studied under the severest working conditions.

Planning Large Additions

Dominion Oil Cloth and Linoleum Co., Limited, Montreal, Have an Extensive Building Program

Alterations and additions to the plant of the Dominion Oil Cloth & Linoleum Co., Limited, Montreal, will be carried out on a large scale during the coming summer. They will include the construction of a large fireproof warehouse, the remodelling of some of their older buildings to make them fireproof, and to fit them for the most modern machinery, also the erection of new additional buildings to provide for the heavy and valuable machinery required to manufacture linoleum rugs, as well as feltol—their felt base floor covering. Owing to the present world-wide shortage of many of the raw materials used in the business, such as jute canvas, cotton fabrics and linseed oil, the present time seemed the most opportune to carry out their plans. The company's works now comprise a matter of twenty-five different factory buildings, occupying a ground area of about ten acres, and, with the new work completed, the Dominion Oil Cloth & Linoleum Co., Limited, will rank with the largest mills of the kind on the continent, both in modern methods of manufacture as well as in capacity of output.

Moving to Stratford

Gerlach-Barklow Co. of Canada, Limited, to Move Their Plant from Toronto to Building at Stratford

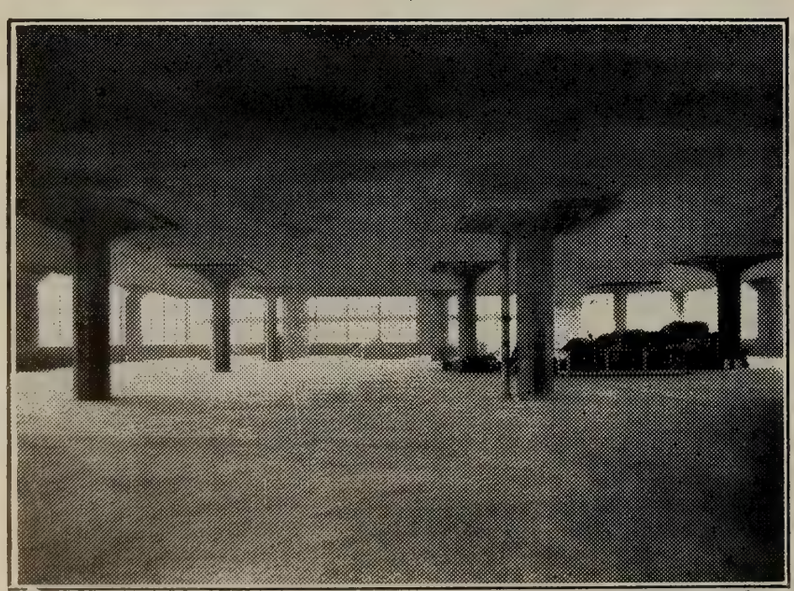
Gerlach-Barklow Co., of Canada, Limited, have recently acquired a factory building in Stratford, Ontario, to which they will move their Canadian plant about the first of April. At the present time the company is housed in the Darling Building, corner Spadina and Adelaide Streets, Toronto, but owing to the congestion in the city they prefer to move to a smaller place. The building which they have acquired is aproximately 40 by 80 feet, three storeys with basement, and is located in an attractive section of Stratford. The company manufacture art calendars and other direct-by mail advertising material, and are employing in their Toronto plant about fifty people.

Enlarging Forge Shop

McKinnon Industries, Limited, St. Catharines, are Making an Extension which will give Increased Capacity

McKinnon Industries, Limited, St. Catharines, have plans made for the erection of an extension to their forge shop. This will be 70 feet long by 50 feet wide, of special construction, consisting of steel frame, continuous steel sash in monitor and along both side walls, steel roll-up curtain doors and two-inch plank roof with tar and gravel. The production from this department will be principally automobile drop forgings, gear forgings and rolled gears.

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"Sparling Service" shoulders the entire responsibility and by unity of command and concentrated effort your building is completed on schedule time.

"Sparling Service" uses the Richards Patent Truss System in one-story buildings, saving you 20% of the cost of your buildings. This system eliminates 50% of the columns.

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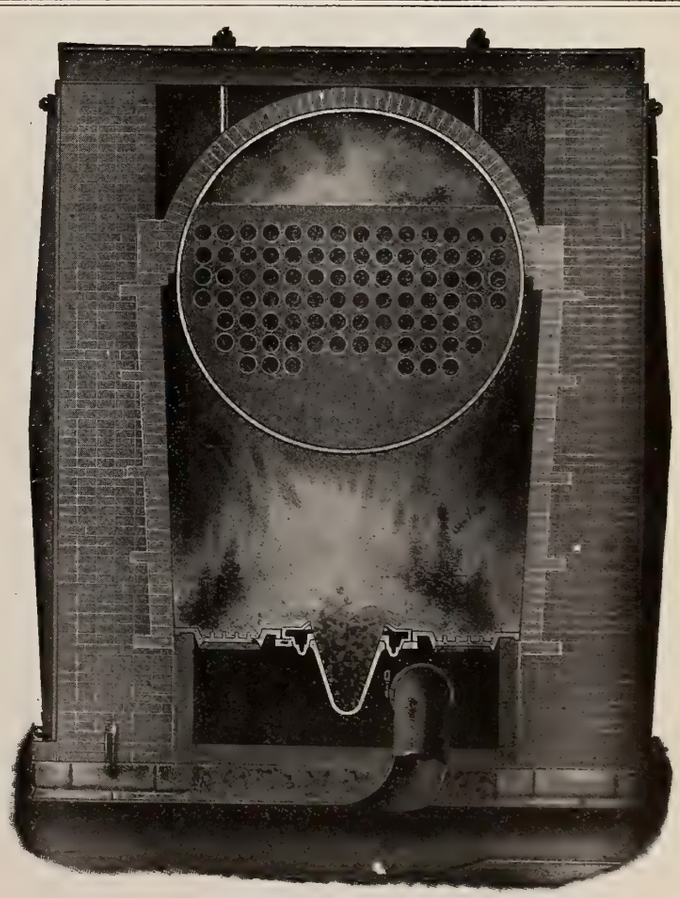
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Will increase the efficiency and capacity of your boiler plant.

Facts that you can verify should be convincing. We can supply you with such facts. We can refer you to plants—probably in your immediate locality—where the Jones is daily accomplishing fuel savings running between 15 and 25 per cent.

Let us investigate the present conditions in your plant and co-operate with you to attain the above results. More than 150,000 boiler H.P. developed in Canada with Jones Stokers.

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Also Toys, Novelties, Tags and Advertising Signs

Well packed is half sold
Make your containers advertise you

Office and Works :
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Increasing Their Capacity

Soren Bros., Toronto, Manufacturers of Domestic Tinware, Move to Larger Premises

After spending five years in the building which they erected on King Street West, Toronto, Soren Bros., manufacturers of all sorts of domestic tin and galvanized ware, have been forced to seek larger premises. They have secured property on Van Horne Street, west of Dovercourt Road, and have removed their plant to this site about February 1. One metal building was already on the property and this has been adapted for manufacturing purposes. A second building of brick is being erected by the firm to accommodate office, warehouse and shipping departments, and there is room for a third building which can be erected when required. The new plant contains about 50,000 square feet of space or just double the old plant, and it is hoped to increase the output by 150 to 200 per cent. A galvanizing plant is being installed, which is a new departure for the firm, and they will also have railway siding, which will greatly facilitate the movement of materials and finished products. With their improved facilities, the firm hope to be able to take advantage of export business now offering.

Sawmills Being Improved

Extensive Improvements and Alterations Being Made by Shevlin-Clarke Lumber Co.

Mills of the Shavlin-Clarke Lumber Co., Fort Frances, Ont., are being improved to take care of growing demand for the company's product. The planing mill is being equipped with a number of additional machines; the present engine-room is being removed and additional equipment being installed. No. 1 sawmill is also being improved in its horse-power capacity. The improvements now under way will entail an expenditure of over $100,000.

New Clay Products Company

Manitoba Clays and Building Supplies, Limited, Formed in Winnipeg to Manufacture Clay Products

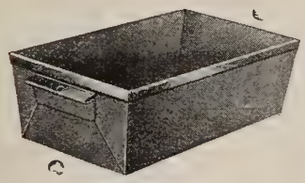
Manitoba Clays and Building Supplies, Limited, is the name of a new $300,000 Dominion incorporation with head office in Winnipeg. The company will operate three departments: (1) manufacture and sale of clay products; (2) sale of building supplies, and (3) construction of roads, culverts, and bridges. The company have in view the operation of at least two plants, the negotiations for which are now pending, and every endeavor is being made to secure them and have them running in time for the heavy demand for brick that will be made this spring. They also hold western agencies for some of the largest firms manufacturing building supplies in the West. The president and managing director is Mr. J. L. Thomas, civil engineer; Joseph Dixon is vice-president, and H. Lewis White, secretary-treasurer. The directors include Messrs. J. L. Thomas, J. Dixon, R. H. Hayward, T. S. Cooke and H. P. Hartley.

Sell Canadian Plant

Norwood Engineering Co. of Canada Dispose of Their Factory at Cowansville, P.Q.

The Norwood Engineering Co., of Canada, Limited, the Canadian branch of the Norwood Engineering Co., of Florence, Mass., have recently disposed of their manufacturing plant at Cowansville, P.Q., to the Colonial Machinery Co., Limited, and have transferred their office to 71A St. James Street, Montreal. The Norwood Co. purchased the Cowansville factory in 1914, with the intention of manufacturing mechanical filtration plants and paper-mill machinery, but owing to the

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Anything in Black or Galvanized Sheet Metal up to ⅜-in. thickness. Send blue-print or rough drawing and get our prices.
Sheet Steel Sundries for the manufacturers is one of our specialties.

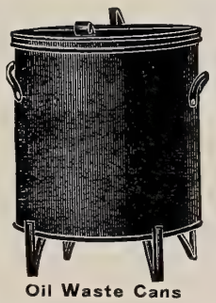
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DOMINION BRIDGE CO., LIMITED

MONTREAL, P.Q.

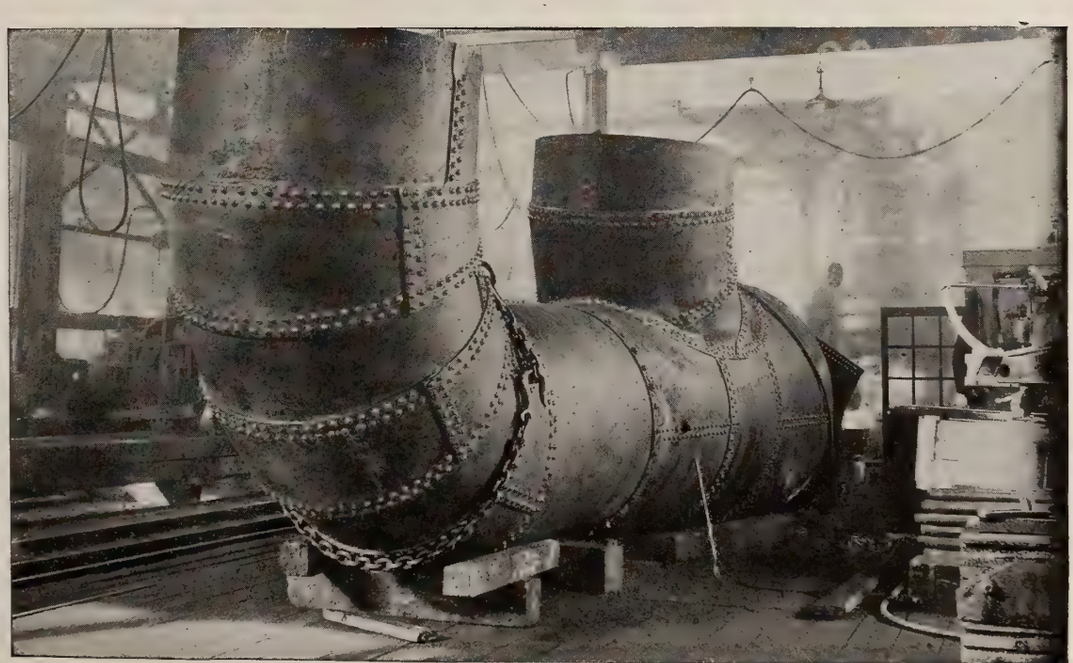
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war, this business was very limited and there was practically no business whatever along these lines being done in Canada. The company accordingly equipped the factory for shell-making, and manufactured shells for the Imperial Munition Board for about three years. At the close of the war, they sold off the shell-making machinery and, as business in their particular line did not seem to develop, they finally decided to sell the factory. In the meantime, they have arranged with the Colonial Machinery Co. to manufacture part of their product for them. They will maintain a selling force in Canada, and, if business warrants, will probably resume manufacturing at a later date.

Wiil Build New Foundry

P. B. Yates Machine Co. Plan Construction of Half-Million Dollar Plant

The P. B. Yates Machine Co. will this spring commence the construction of a half-million dollar iron foundry at Beloit, Wis. The building, which will contain 54,384 square feet of floor space, will be constructed of brick, steel and reinforced concrete, and will contain the latest and most efficient foundry equipment. This addition will double the output of the Beloit plant.

Establish Branch Plant

The Grosch Felt Shoe Co., Limited, Milverton, Takes Over Plant at Stratford

The Grosch Felt Shoe Co., Limited, Milverton, Ont., have acquired the property in Stratford, previously owned by the Stratford Desk Co., and are remodelling and equipping it for the manufacture of their lines of felt shoes and slippers, the plant at Milverton having for some time proved too small for the business offering.

The property consists of main building of solid brick construction, 212 x 40 feet, two storeys high. Adjoining this is a warehouse and boiler and engine-room, and adjacent thereto a brick building two storeys high, 40 x 50 feet, which will be utilized for the manufacture of felt specialties. The property includes 4½ acres of land, giving ample space for expansion.

Operations have not yet commenced, owing to delays in the delivery of machinery, but it is expected that everything will be in running order before March 1. From 75 to 100 hands will be employed at the outset, and 1,000 pairs of shoes turned out daily.

New Industry for Brantford

Canadian Corporation Formed to Manufacture Blue Bird Electrical Appliances in Canada

Under the name of the Blue Bird Manufacturing Co. of Canada, Limited, a company has been formed in Brantford to manufacture in Canada all the electrical household devices now being made by the Blue Bird Manufacturing Co. of St. Louis. The new company has taken over No. 1 plant of Motor Trucks, Limited, and will start manufacturing in the near future. J. B. Detweiler, manager of the Brantford plant of the Steel Co. of Canada, has resigned that position to become president, and also interested in the company are R. E. Secord, W. J. Verity, W. C. Boddy and T. Hendry, all of whom were previously directors of Motor Trucks, Limited.

The principals of the St. Louis company will be financially interested in the Canadian company, but the latter will be controlled and the greater part of the stock be owned by Canadians. The Canadian company obtains the rights for the Blue Bird design and trade mark, also all patents and licenses now in possession of the American company and any that

Fellow Manufacturers



We Make in Canada
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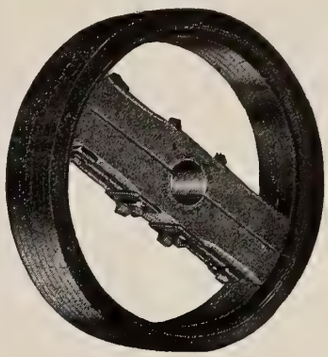
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BERNARD
Wood Split Pulleys

The war is ended so far as a continuation of the bloody combats of the battlefields is connected. But in the war after the war there will be waged lively battles for industrial supremacy wherein the advantage will lie with the plant equipped with the most economical and durable machinery.

Competition will be more intense, and in this connection, keep your eye on the overhead. It has been looming large these past few years and must certainly come down.

BERNARD Wood Split Pulleys will help you eliminate power waste; their cost is low, their efficiency is GREAT.

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Manufacturers of High-Grade Power Transmission Appliance
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Black Varnish
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may be acquired in future. A subsidiary company, the Canadian Blue Bird Appliance Co., will be formed to market all goods made by the Blue Bird Manufacturing Co. The principal products will be electric clothes washing machines and electric iceless refrigerators, and later on dish washer, ironing machines and vacuum cleaners.

Paper Mill for Winnipeg

Red River Paper Mills, Limited, will Undertake Reclamation of Waste Paper on a Large Scale

Within the next month or two, Red River Paper Mills, Limited, in which a number of well-known Winnipeg men are interested, will start operations. The company will manufacture new paper from wastepaper which is now being destroyed and burned or disposed of to American mills for remilling. A site for the mill with 350 feet frontage on the Red River has been purchased and this will allow for ample expansion as business develops. Beaters, pulping engines, refiners, and paper machines, are now being installed and all will be driven by electrical power. Mr. Frederick T. Gilroy is manager of the company.

Form Canadian Company

Canadian Mead-Morrison Co., Limited, Will Operate the M. Beatty Plant at Welland

Reference was made in last month's issue of INDUSTRIAL CANADA to the purchase by the Mead-Morrison Co., of East Boston, Mass., of the plant of M. Beatty & Sons, Limited, Welland, Ont. A Canadian company has subsequently been formed,—Canadian Mead-Morrison Co., Limited, with general sales offices in charge of D. W. Coe, general sales manager, at 285 Beaver Hall Hill, Montreal. It is the company's intention to continue the manufacture of the Beatty products as well as to undertake the manufacture of the much more extensive line of Mead-Morrison products. The name "Mead-Morrison" is quite well-known throughout Canada, as the American company has supplied a very large amount of equipment and has built complete plants for the unloading, storing and handling of coal, ore, coke, cement, sand and other materials.

The Tavistock Milling Co., Limited, Tavistock, Ont., intend to increase the capacity of their plant by installing some new machinery.

On December 1, the Canadian Ice Machine Co., Limited, removed their office, shop and warehouse to their new building at Villiers and Munition Streets, Eastern Harbor Terminal, Toronto.

Directors of the United Grain Growers have not yet decided what course they will follow regarding rebuilding of their flour mill at Gladstone, Man., recently destroyed by fire. It will probably be rebuilt of the same capacity as formerly.

The Canada Paint Co., Limited, Montreal, have recently completed the installation of new machinery which will give their plant an increased capacity of at least 25 per cent. They are looking for a record year in the sale of their various products.

As soon as they can obtain the right textile machinery for their work, Henry Davis & Co., Limited, Toronto, manufacturers of infants' and childrens' wear, will increase their

STEEL BARS

ROUNDS, SQUARES, FLATS, ANGLES AND SPECIAL SECTIONS FOR AGRICULTURAL IMPLEMENTS

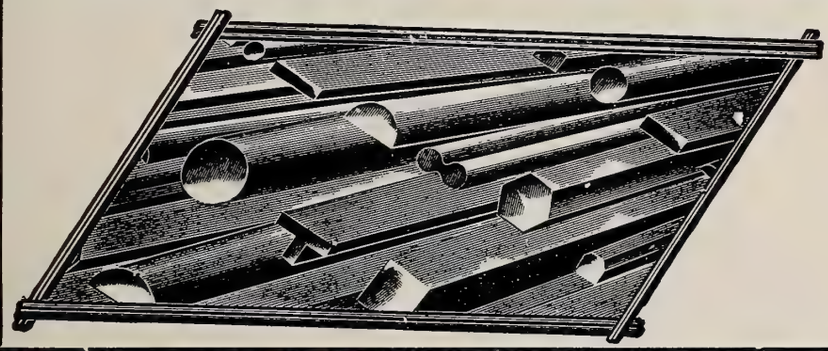
Prompt Shipment from Stock

BURLINGTON STEEL CO., Ltd.

HAMILTON - CANADA

UNION DRAWN STEEL CO., Limited

HAMILTON, ONTARIO



MANUFACTURERS OF

Shafting

Rounds, Flats, Squares and Hexagons

LARGEST STOCK IN CANADA

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CANADIAN TUBE & IRON CO., LIMITED

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WROUGHT PIPE BLACK AND GALVANIZED 1/8 TO 4 INCH

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CANADIAN ROLLING MILLS CO., LIMITED

Bar Iron and Steel

COLONIAL WIRE MFG. CO., LIMITED

Wires, Wire Nails, Wood Screws, etc.

WORKS: LACHINE CANAL MONTREAL, CANADA



210,000 K.W. Plant of Buffalo General Electric Co. Engrs: Stone & Webster Eng. Corp., New York. Archt. W. W. Bosworth, New York. *Standard Wires and Cables Used Throughout.*

Where Dependability Counts

In the design and construction of this large, steam-driven electric power plant nothing was omitted which would make for efficient and dependable operation. It is recognized as a model plant.

STANDARD Wires and Cables

were installed throughout this notable plant because their superior quality and recognized dependability are in keeping with the other engineering features.

STANDARD wires will meet your requirements economically. Write our nearest office.

Standard Underground Cable Co. of Canada, Limited
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Montreal, Toronto, Seattle, Wash.

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STEEL STRUCTURES

OF ALL CLASSES
PARTICULARLY

BUILDINGS
BRIDGES
TANKS

MacKinnon Steel Co., Limited
SHERBROOKE, QUE.

Montreal Office: 404 New Birks Building

plant considerably, but it may be some months before they will be able to do so.

A plant for the manufacture of monuments and cut stone for building purposes will be erected by Alex. Young Limited, at Regina. The plant will cost about $30,000, and employment will be given to about 50 men. Details as to size and capacity have not yet been worked out.

The Great West Knitting Co., Limited, Winnipeg, manufacturers of fancy sweaters, jerseys, mitts and bathing suits, have received authority to increase their capital from five to twenty thousand dollars. They have greatly increased the capacity of their plant and hope to at least double their last year's output of goods.

Western Upholstery Limited is the name of a new company which has recently been established in Calgary for the purpose of manufacturing upholstered goods for the trade. They have started in a small way, and have so far met with considerable encouragement. The president is Mr. D. S. Sykes, and the location of the industry is 407a, Eighth Avenue West.

The Beaver Soap Company, of Winnipeg, of which Mr. W. G. Fraser is president, are putting in eight thousand dollars' worth of new machinery into their soap manufacturing plant, for the purpose of doubling the capacity of the plant. The Beaver Soap Company manufacture soap for steam laundry purposes and handle other supplies in connection therewith.

The Procter & Gamble Manufacturing Co., soap manufacturers, Hamilton, are at present erecting a three storey addition, approximately 50 x 100 feet, to the building which houses their Crisco and Flakewhite departments. This building will be used as additional capacity for the manufacture of these products and they expect to have it completed early in the summer.

The Canada Linseed Oil Mills, Limited, Toronto, are putting up a new building, 30 by 40 feet, two storeys and basement, which will be used for office and warehouse purposes. Since building their mill and present office about ten years ago, business has increased to such an extent that additional clerks have been necessary, and in order to provide adequate accommodation for the office staff they are erecting a new building.

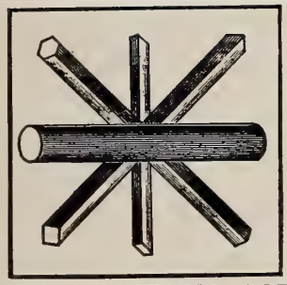
The Colonial Hide Company, dealers in hides, calfskins, pelts, wool and furs, Boston, Mass., who have warehouses in a number of Eastern Canadian cities, have bought the Pion tannery in Quebec. It was at first rumored that they would use it for manufacturing purposes, but the company inform INDUSTRIAL CANADA that they do not expect to do a manufacturing business of any kind. The purchase was made because present quarters were too small.

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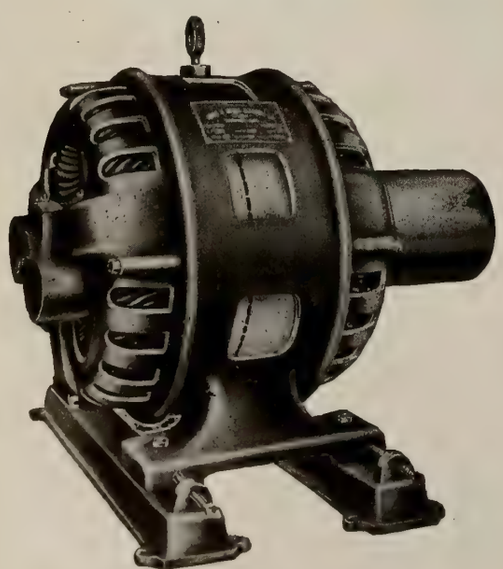
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REPAIR ALL KINDS OF ELECTRICAL MACHINERY

British Export Information

Association Receives Four Volumes of Valuable Compilation on British Manufactures

The head office of the Canadian Manufacturers' Association has recently received the following volumes of the "British Standard Exporter, 1919-1921"—

Vol. I, Leather, Earthenware and Hardware, 485 pages.
Vol. II, Groceries, Provisions, Wines and Tobacco, 540 pages.
Vol. III, Stationery and Fancy Goods, 525 pages.
Vol. IV, Engines, Boilers and Commercial Vehicles, 658 pages.

Each volume is divided into sections, and contains not only the names of British manufacturers and their products, but also illustrations, descriptions and in many cases, the prices of the articles. The volume dealing with stationery and fancy goods includes many samples.

This publication, which, when completed, will include 25 volumes represents a serious attempt on the part of British manufacturers to furnish the overseas markets with information of an adequate description respecting sources of supply in the United Kingdom. The production of the publication has involved an outlay of a quarter of a million pounds, and includes the products of over 4,500 British manufacturing firms.

At the present time these volumes should be of inestimable value to Canadian firms who are looking for sources of supply in the United Kingdom.

Propose Plant Councils

Spanish River Pulp and Paper Mills Will Hold Conference on February 16

At the "President's Banquet," held at the Soo on January 10th, several announcements of interest to employees of the Spanish River Pulp and Paper Mills were made by Col. C. H. L. Jones, the general manager. Of most importance was the intimation that the question of establishing plant councils had been taken up, and that a general conference would be held to discuss the proposal on February 16. Col. Jones also announced that it was the intention to insure all men in the employ of the company against death, sickness, and accident, to institute a system of service buttons, and to provide vacation at full pay based on length of service. The "President's Banquet," at which these announcements were made, was attended by men from all the company's mills, and was a most successful affair from the standpoint of bringing the management and the men into closer touch

New Patents

Several Interesting Devices for which Patents Have Recently Been Issued

The following is a list of Canadian patents recently issued through the agency of Messrs. Ridout and Maybee, 156 Yonge Street, Toronto:—

Emile A. Fourneaux, the production of black upon textile fabrics; Alfred A. Lockwood, obtaining copper from its ores; John W. Myatt, loose leaf books or binders; Auguste J. Rossi and C. J. E. Schroeder, paints; Louis E. Barton, composite titanic oxide pigments and methods of producing the same; Henry C. Minns testing device for the ignition systems of internal combustion motors; Fred D. S. Robertson process of extracting potassium from its insoluble compounds;

Penmans

Underwear, Hosiery and Sweaters
Laundry, Pulp and Papermakers' Felts, Blankets
Lumbermen's Socks, etc.

Factories at

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ST. HYACINTHE AND COATICOOK, QUEBEC

Penmans LIMITED

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Limited

Kitchener - Canada

Manufacturers of
TWINES AND CORDAGE
CLOTHES LINES
PLOW LINES, etc.

We have a new line of Hemp Twine which we especially recommend for either light or heavy parcelling.

Our goods are made in Canada from the raw material. Assist the development of our country by buying Made-in-Canada goods.

MILLS AT DOON AND KITCHENER

The
MONTREAL COTTONS
LIMITED

MANUFACTURERS OF

WHITE VICTORIA LAWNS

WHITE NAINSOOKS

and

DYED COTTONS

OF EVERY DESCRIPTION

Their Reputation Protects You

Butterfield Taps



The good mechanic *knows* when he sees the name "Butterfield" on the shank of a tap that he has the best tap made.

He knows Butterfield Taps are accurate and fast-cutting tools that stand up well on any grade of work.

Why take chances on taps of obscure origin. Butterfield Taps cost no more and give assured service.

Butterfield & Co. Inc.
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The Original and Only Genuine

¶BEWARE OF IMITATIONS SOLD ON THE MERITS OF—

Minard's Liniment

Office and Laboratory: Yarmouth, N.S.
Branch Factory: St. John's, Newfoundland

John Russell button-hole stitching machine; Predigest Food Co. Limited manufacture of animal feeds from kitchen garbage and the like; Alfred T. Kwajel magneto-electric machines for engine ignition purposes; John Yetton and W. E. Brockett holders for wire staple belt fasteners; Philip T. Jackson fluid control apparatus.

Leather Manufacturer's Death

President Collis Leather Co., Limited, Aurora, in Tanning Industry All His Life

A distinct loss to the ranks of Canadian leather manufacturers was occasioned by the death on January 28 of Mr. Sydney M. Collis, president and general manager of the Collis Leather Co., Limited, Aurora. Mr. Collis was an Englishman by birth, and had been in the tanning industry all his life. To him and his brother, the late Walter Collis, credit is given for the introduction into Canada of the chrome process of tanning calfskins. The late Mr. Collis was in his 63rd year.

Resigns Management

F. R. Humpage Leaves the Wilt Twist Drill Co. of Canada, Limited, Walkerville

Effective March 31 next, Mr. F. R. Humpage has resigned the offices of vice-president and general manager of the Wilt Twist Drill Co., of Canada, Limited, Walkerville. Mr. Humpage has been in ill-health for some time and felt it necessary to give up for a time all business activities. He left at the end of January for Florida where he will endeavor to secure a complete restoration of health.

Mr. Humpage has been connected with the Wilt Twist Drill Co., of Canada for three years and a half during which period he was successful in more than trebling the output and sales of the factory, besides adding several new lines such as reamers and milling cutters. Mr. Humpage has always taken an active interest in all matters pertaining to manufacturing in Canada and has been instrumental in endeavoring to raise the standard of the drill, reamer and cutter manufacturing industries in Canada.

Pioneer Instrument Manufacturer

Late Eri Whaley, of Toronto, Said to Have Made First Cornet Produced in Canada

The late Eri Whaley, president and general manager Whaley, Royce and Co., Limited, Toronto, whose death occurred on January 28, was a pioneer in the manufacture of band instruments in Canada. Starting business life in the carriage manufacturing industry in Orangeville, he came to Toronto in 1885 and became associated with Thomas Claxton in the music trade. In 1888 he formed a partnership with George C. Royce as Whaley, Royce and Co., beginning the manufacture of brass band instruments. That year they completed the first cornet ever made in Canada. In 1890 the company engraved the first music plate made in Canada, following this up with the production of the first Canadian-made clarionets, flutes, and piccolos. In 1901 Mr. Whaley bought out Mr. Royce and became president and general manager of the company, which was then incorporated.



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of your insurance premiums and eliminate all fire worries by having us protect your factory and its output with an

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Your savings in insurance premiums buy the complete system on our participating plan.

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also wood and steel tanks for Municipal, Railway and Suburban water supply.

All our tanks and towers are built to pass inspection of any Board of Fire Underwriters.

Send for special tank and tower catalogue.

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We do all kinds of hot and electro galvanizing for the trade. Our plant is one of the largest in Canada and our charges reasonable.

Write us for quotations on your galvanizing work.

Ontario Wind Engine & Pump Co., Limited
TORONTO MONTREAL WINNIPEG CALGARY

T H-E

Save Current

Impress on your employees, during the present power shortage, the need of saving current---particularly in the matter of lighting. The more current saved thus, the more is free for your machines. Lights are often left on when not needed, or several used when one or two would do.

This is where a word from you will bear good fruit---in the interests of all concerned.

Toronto Hydro-Electric System

226-8 Yonge Street Branch: Gerrard and Carlaw

Catalogues and Booklets

Hoists and Conveyors

Two new catalogues, issued by the Canadian Link-Belt Co., have recently come to hand—No. 375, dealing with "Labor Saving Elevators and Conveyors," and No. 380, with "Electric Hoists and Overhead Cranes." As usual with all the advertising matter issued by this company, the utmost care has been taken to visualize the appliances described, and a series of photographs illustrating the conveyors, hoists, etc., forms a distinctive feature of each book. All these photographs have evidently been taken and reproduced by experts, for they are remarkably clear and convincing. The pictures really tell the whole story, and letter-press is reduced to a minimum. Manufacturers, who have handling problems of any kind to solve, would do well to secure copies of these books, from which they will undoubtedly get useful suggestions.

C.C.M. Bicycles

The Canada Cycle & Motor Co., Limited, have issued an export edition of their catalogue, in which they tell something of their organization, their factory and their product. It is tastefully gotten up and contains numerous illustrations, which serve to visualize the attractive qualities of their bicycles.

A Neat Diary

A neat little leather-bound pocket-size diary for 1920 has been issued by the Canadian Westinghouse Co., Limited. In addition to the ordinary diary features, the little volume contains 48 pages of useful information principally along the lines of engineering data, which will be found of value by engineers. The diary will be appreciated by all who have use for such a handy compendium.

Methods of Figuring Radiation

A new bulletin, "Dunham Heating Data," has just been issued, describing and explaining standard methods of figuring radiation and laying out piping. Valuable ventilating data is also included, the whole being put in very practical and concise form, getting at the real information without having to wade through a lot of preliminaries. Various details of piping connections are illustrated, and complete pipe sizing information given. This bulletin, together with several others of interest and value to the stationary and heating engineer, can be secured by writing the C. A. Dunham Co., Ltd., 1535 Davenport Road, Toronto, Ontario.

Saws and Saw Tools

E. C. Atkins & Co., manufacturers of Silver Steel saws and saw tools, have just issued a large and comprehensive catalogue of 264 pages, which they send out in ordinary cloth binding and also in special ooze leather binding with sunburst cover. The work of arrangement, classification and illustration has been most effectively done and from the typographical standpoint the volume is a real work of art. Every item is realistically illustrated; the descriptive matter is most complete and by means of a carefully prepared index it is possible to get at desired information without loss of time. It is in short a catalogue that will be most useful to all buyers of the kind of products manufactured by E. C. Atkins & Co.

THE
New Zealand Shipping Company Limited
CANADA
TO
Australia and New Zealand

Regular monthly sailings from Montreal in summer and St. John in winter, calling at Auckland, Wellington, Lyttelton and Dunedin (New Zealand) and Melbourne and Sydney (Australia). Sailings 20th of eachmonth.

Through bills of lading issued to all points in Australia, New Zealand, Tasmania and other islands of Oceania.

Marine Insurance effected at rates equal to those given from New York.

For rates and other information apply to
The New Zealand Shipping Co.
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22 TORONTO STREET, TORONTO
EXPORT MARINE IMPORT
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INCLUDING LOSS BY MINES AND STRIKES

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EACH WAY - EVERY DAY
TORONTO - VANCOUVER
FROM TORONTO - 10 p.m. DAILY

STOPS AT AND CONNECTS FOR PRINCIPAL POINTS

Standard Sleepers, Dining Car, Tourist Sleepers, Compartment Observation Car, First-class Coaches and Colonist Car.

The most beautiful scenery in Canada is along the line of the Canadian Pacific. Magnificent Rocky Mountain Resorts at Banff, Lake Louise and Glacier.

Passengers for California should arrange their trip to include the Canadian Pacific Rockies

CANADIAN PACIFIC HOTELS IN WESTERN CANADA OPEN ALL THE YEAR ROUND

"Royal Alexandra," Winnipeg; "Palliser Hotel," Calgary; "Vancouver Hotel," Vancouver; "Empress Hotel," Victoria.

Particulars from Canadian Pacific Ticket Agents. **W. B. HOWARD**, District Passenger Agent, Toronto.

Canada-South Africa
Direct Service

Regular monthly sailings from Montreal in Summer and St. John, N.B., in Winter, calling at Cape Town, Algoa Bay (Port Elizabeth), East London, Port Natal (Durban) and Delagoa Bay in the order named.

Sailings 20th of each month.

All steamers fitted with refrigerators for the carriage of perishable freight.

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Book Reviews

The Fuel Problem

Industrial Fuels. By J. Stephenson. Toronto: The Westman Press, Limited. Paper covers, $2.25. Cloth covers, $3.00.

The appearance of this work by Mr. Stephenson merits a special word of commendation. It marks an attempt to provide Canadian readers with technical information written from the Canadian viewpoint and dealing specifically with Canadian problems. Almost invariably in seeking information on technical themes, one must have recourse to textbooks compiled in Great Britian or the United States, and, while these are often very admirable works, they lack the application to Canadian conditions which would render them of maximum value. In the present volume, which has not only been written in Canada, but also printed and published here, these deficiencies are remedied.

Mr. Stephenson has gone into his subject very thoroughly and systematically. His ten chapters deal successively with coal, natural gas, coal gas, oil gases, producer gases, coke, fuel briquets, application of commercial gases, fuel analysis and fuels of the future. In each case he goes back to the beginning, and traces developments down to the present day, explaining and illustrating processes and appliances and weighing the relative merits of various fuels. At the present time when the fuel problem has become such a serious one, and attention is being increasingly directed towards its solution, the publication of such a book is timely and valuable and an examination of its contents should prove of service to all manufacturers.

Advice for Women Workers

The Girl of the New Day. By E. M. Knox, Principal of Havergal College, Toronto. McClelland & Stewart.

The insight and experience gained from dealing with successive generations of girls, numbering at the present time over five hundred, in the three Toronto schools under her care, give Miss Knox an unusual opportunity for studying the "Girl of the New Day" and her needs for to-day and to-morrow. In this volume much wise and kindly advice is bestowed on the young women who are just leaving school to take their place in the world of action. The author takes up the various lines of work now open to women, and deals with the special features of each. She has chapters on "The Business World" and "Salesmanship," in which she refers to these new spheres of endeavor, pointing out their advantages and drawbacks. Throughout she endeavors to inspire a desire to do work worth while, and not to be content simply to drift. It is a book of inspiration and should be of real help to many a young woman on the threshold of active life.

A New Business Publication

An interesting newcomer in the field of Canadian business publications is *Business Methods*, a monthly magazine, the first number of which was issued in December. Modelled somewhat on the lines of *System*, it aims to specialize in Canadian experience in business management, and for this reason has a special claim on the attention of Canadian business men. The initial number is a creditable production, well illustrated and gotten up in a pleasing typographical form. Among its contents one notes an interesting illustrated description of welfare work at the Massey-Harris works in Toronto, and such informing articles as "Points to know about your Fire Insurance Policy," "The Better Business Letter," "How much do you set aside for Depreciation?" "Problems of Filing Correspondence," etc. If the standard of the first number is maintained, this publication should have an assured position in the favor of Canadian readers.

Exporters :
Ship Canadian National
"All the Way"

Canadian exports should be transported in Canadian box cars and Canadian ships

The people of Canada are the proprietors, through the Government, at Ottawa, of a fleet of commerce carriers designed to carry products from this Dominion to all ports on all the seven seas where Canadian goods can find a market.

Twenty-three vessels of a programme of sixty are already in service:

SAILINGS, 1920

(Subject to change without notice)

Liverpool Service.

From Halifax, N.S.

Voy.	On or about.
No. 4.—Canadian Seigneur	Feb. 23rd
No. 4—Canadian Miller	Mar. 17th.

From St. John, N.B.

No. 5—Canadian Ranger	Feb. 29th

London Service.

From St. John, N.B.

No. 6—Canadian Voyageur	Feb. 10th.
No. 3—Canadian Trooper	Feb. 28th.

Glasgow Service.

From Halifax, N.S.

No. 2—Canadian Aviator	Feb. 17th.
No. 2—Canadian Settler	Mar. 18th.

Buenos Aires Service.

(Calling at Pernambuco, Rio de Janeiro, Santos, Brazil, if *sufficient cargo offering.*

From Halifax, N.S.

No. 1—Canadian Spinner	Mar. 5th.

Havana, Cuba, Service.

From Halifax, N.S.

Voy.	On or about.
No. 1—Sheba	Feb. 5th.
No. 5—Canadian Trader	Feb. 14th.
No. 5—Canadian Sailor	Feb. 21st.

From St. John, N.B.

No. 3—J. A. McKee	Feb. 7th.
No. 4—Canadian Adventurer	Feb. 14th.
No. 3—Canadian Sower	Feb. 21st.

Kingston, Jamaica Service.

From St. John, N.B.

No. 5—Canadian Warrior	Feb. 11th.
No. 4—Thos. J. Drummond	Feb. 25th.
No. 6—Canadian Warrior	Mar. 18th.

Barbados, Trinidad and Demerara Service.

From Halifax, N.S.

No. 4—Canadian Signaller	Feb. 19th.
No. 3—Canadian Gunner	Mar. 20th.

Australian and New Zealand Service.

(Calling at Sydney and Melbourne, Aus., and Auckland and Wellington, N.Z.).

From Vancouver, B.C.

No. 1—Canadian Importer	Feb. 5th.
No. 1—Canadian Exporter	Feb. 28th.

And regularly thereafter.

These vessels of the Canadian Government Merchant Marine, Limited, are being operated under the direction of Canadian National Railways. The two combined—rails and ships—constitute Canada's great adventure in public ownership. If shippers in Canada will support their own box cars and vessels as they deserve to be supported, the adventure will certainly be crowned with success.

GET THE "NATIONAL" HABIT

Any Canadian railway agent can furnish information about rates and space, or

D. O. WOOD, Traffic Manager, Export and Import Dept.,
Canadian National Railways, Toronto, Ontario.

Canadian National Railways

Recent Trade Enquiries

A List of Enquiries Received from Various Sources including the Canadian Trade Mission, London; the Canadian Trade Commission, Ottawa; the Department of Trade and Commerce, Ottawa; and the Commercial Intelligence Department, C.M.A., Toronto.

FOREIGN

280. Agency in Mexico.—A correspondent in Mexico wishes to get into communication with Canadian firms not already represented in that republic. His references are good.
281. Australia.—A firm in Australia, having a strong connection throughout that country, amongst the grocery, hardware, jewelry and soft goods, and wholesale warehouses wish to represent Canadian manufacturers on a sole agency basis. They are prepared to furnish letter of credit to liquidate purchases.
282. Import and Export.—A firm in New York that has representation throughout America, Africa, Europe, China and Japan, desire to get in touch with any Canadian manufacturer who wishes to be represented in the States or other foreign countries, for the sale of their goods.
283. Asbestos Fibre.—A manufacturing company in the North of England invite quotations from Canadian producers of asbestos fibre of the lightest variety, suitable for making mattresses, and also the lowest grades for making up compositions and for spinning
284. Kitchen Ranges.—A Dublin firm wishes to get into touch with Canadian manufacturers of kitchen ranges prepared to appoint a resident agent for the sale of their goods in Ireland.
285. Piraeus-Greece.—A firm of import and export merchants in Piraeus would like to get into communication with manufacturers of the following goods: tinned provisions, tinned milk, and butter.
286. British Guiana.—An import and export house in British Guiana that has offices in Port-of-Spain, Trinidad, and Bridgetown, Barbadoes, wish to get in touch with manufacturers of Canadian goods. They have been in that market for five years representing some of the best foreign interests.
287. Woodenware.—A Yorkshire firm wish to get into touch with Canadian manufacturers of wooden handles of all kinds, clothespegs, and other household woodenware, of which they are buyers.
288. Maize Starch.—A London manufacturers' agent and merchant desires the addresses of Canadian manufacturers of maize starch.
289. Glass Shades, Bowls, etc.—A Midlands company manufacturing electric light fittings are desirous of hearing from Canadian manufacturers of glass shades, bowls, etc., to work in with these metal fittings.
290. Canned Goods.—A London company are desirous of securing the agency of Canadian packers of canned meats, fish, fruits, and vegetables, not already represented in the United Kingdom.
291. Hardware.—A London firm seeks the agencies of Canadian manufacturers of articles suitable for the wholesale hardware trades in England and Scotland, notably, meat mincers, aluminum teapots, etc., and electric bells.
292. Food Products and Confectionery.—A London manufacturers' agent wishes to get into touch with Canadian manufacturers of food products and confectionery seeking representation in the United Kingdom.
293. Magnesite.—A Liverpool firm seek supplies of Canadian magnesite, and also of dead-burnt or clinkered magnesite, and invite offers from producers.
294. Woodenware.—A company in the East of England, who are buyers of clothespegs, washboards, broom handles, and other domestic woodenware, as well as of wooden toys, would be glad to hear from Canadian manufacturers in a position to fill orders.
295. Chemicals, etc.—A London firm are desirous of getting into touch with Canadian manufacturers of chemicals seeking an outlet for their supplies in the United Kingdom, Scandinavia and France. Immediate requirements are white and red leads and formaldehyde.
296. Furniture.—A correspondent in the South of England wishes to form a connection with Canadian manufacturers of furniture prepared to develop a market in the United Kingdom.
297. Woodenware.—A Birmingham company ask to be placed in correspondence with Canadian manufacturers of handles, clothespins, washboards, etc.
298. British Agency for Wire Ropes.—A leading manufacturer of wire ropes in Great Britain wishes to get in touch with merchant houses in Nova Scotia who may be interested in obtaining a Canadian agency.
299. Agency for Canadian Packing House.—A manufacturers' agent in Bristol is desirous of obtaining the sole agency for England of a Canadian packing house, packing bacon, hams and lard.

Minister: Hon. W. R. Rollo

Department of Labour
ONTARIO GOVERNMENT

Deputy Minister: W. A. Riddell, Ph.D

Ontario Government Employment Bureaus

(Employment Service of Canada)

Well equipped offices in 36 towns and cities in Ontario

Work of all kinds.

For men and for women.

No Fees

General Superintendent: H. C. Hudson, B.A.

Labour Laws

1. The Stationary and Hoisting Engineers' Act. W. C. McGhie, Chairman of Board
2. The Factory, Shop and Office Building Act. Jas. T. Burke, Chief Inspector.
3. The Steam Boiler Act. D. M. Medcalf, Chief Inspector.
4. The Building Trades Protection Act.
5. The Employment Agencies Act.
6. The Bureau of Labour Act.

The Name "HOYT" on Babbitt Metals—a Guarantee



Hoyt Metal Babbitts **have** earned a reputation for enduring service under exacting, extreme conditions.

Hoyt Metals give consistent service because the formulae are right and the most scrupulous care is taken to maintain the accuracy of mixing.

HOYT METAL COMPANY

MONTREAL TORONTO WINNIPEG

Buyers' Guide to Canadian Manufactures

List of Articles which will Enable the Purchaser to Know the Manufacturers of Made-in-Canada Goods. Rates for insertion in this department, $4.00 per heading per year (12 insertions).

ABATTOIR MACHINERY AND SUPPLIES
*The John Whitfield Company, Toronto, Ont.

ABRASIVES
*Coralox, Limited, Hamilton, Ont.
*Canadian Hart Wheels, Limited, Hamilton, Ont.
*Dominion Abrasive Wheel Co., New Toronto, Ont.

ACCOUNT BOOKS
*The Brown Bros., Ltd., Toronto.

ACCUMULATORS, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.

ACETYLENE GAS
*The Prest-O-Lite Company of Canada, Ltd., Toronto, Ont.

ACETYLENE GAS BURNERS
Economic Acetylene Burner Co., Toronto, Ont.
*The Prest-O-Lite Company of Canada, Ltd., Toronto, Ont.

ACID PROOF COATINGS
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

ACIDS
*The Grasselli Chemical Co., Ltd., Toronto.
*The Nichols Chemical Co., Ltd., Montreal, Que.

ADVERTISING NOVELTIES
Lawson & Jones, Ltd., London, Ont.

AERATED BEVERAGES
Charles Gurd & Co., Ltd., Montreal, Que.
J. J. McLaughlin, Ltd., Toronto.

AIR COMPRESSORS
*Canadian Ingersoll-Rand Co., Montreal, Que.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

AIR DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

ALCOHOL
*Canadian Industrial Alcohol Company, Ltd., Montreal, Que.
Hiram Walker & Sons, Limited, Walkerville, Ont.

ALUMINUM
*Northern Aluminum Co., Ltd., 1805 Traders Bank, Toronto,

ALUMINUM CASTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.

AMMONIA
Canadian Ammonia Co., Ltd., Toronto, Ont.

ANCHORS, all steel
Beauchemin & Fils, Ltd., Sorel, Que.

ANGLE BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, Que.
*The Steel Company of Canada, Ltd., Hamilton, Ont.

ARSENIC
*Deloro Smelting & Refining Co., Limited, Deloro, Ont.

ARTIFICIAL LIMBS
Chesley Artificial Limb Co., Ltd., Hantsport, N.S.

ASBESTOS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS SHEATHING
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS SHEET AND PISTON PACKINGS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS STEAM PIPE AND BOILER COVERINGS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS TEXTILES
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ATTACHMENT PLUGS
*Crouse-Hinds Co., Ltd., Toronto.

AUTOGRAPHIC REGISTERS
*Autographic Register Co., Ltd., Montreal, Que.

AUTOGRAPHIC REGISTER SYSTEMS
Business Systems, Ltd., Toronto.

AUTOMOBILE ACCESSORIES
*McKinnon Industries Limited, St, Catharines, Ont.
*Northern Electric Co., Limited, Montreal, Que.
*Tallman Brass & Metal Co., Hamilton, Ont.

AUTOMOBILE PARTS
*Dominion Forge & Stamping Co., Walkerville, Ont.
*McKinnon Industries Limited, St. Catharines, Ont.

AWNING CORD (cotton)
Hamilton Cotton Co., Hamilton, Ont.

AXLES
Canada Forge Co., Ltd., Welland, Ont.
Guelph Spring & Axle Co., Ltd., Guelph, Ont.

AXLES, carriage and automobile
Guelph Spring & Axle Co., Ltd., Guelph, Ont.

BABBITT METAL
Alonzo W. Spooner, Ltd., Port Hope, Ont.
*Hoyt Metal Co., Toronto, Ont.
*The Canada Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BACON
E. W. Fearman Co., Ltd., Hamilton, Ont.

BAGS
*Scythes & Co., Ltd., Toronto.

BAGS, Cotton
The Canadian Bag Co., Limited, Montreal, Que.

BAGS, jute
The Canadian Bag Co., Limited, Montreal, Que.
*Scythes & Co., Ltd., Toronto.

BAGS, travelling
J. Eveleigh & Co., Ltd., Montreal.
Lamontague, Ltd., Montreal, Que.
The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.

BAND RESAWS
*Canada Machinery Corporation, Limited, Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

BAND SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

BANK FITTINGS
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.

BANK AND OFFICE RAILINGS AND CAGES
*Canada Wire and Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*The Geo. B. Meadows, Toronto, Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.

BANK SIGNS AND FITTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.

BARRELS, steel, and containers
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

BARS, iron
London Rolling Mill Co., Ltd., London, Ont.

BARS, steel
London Rolling Mill Co., Ltd., London, Ont.

BASEBALL GOODS
A. J. Reach Co., Brantford, Ont.

BATHS, enamelled
Amherst Foundry Co., Ltd., Amherst, N.S.

BATTERIES, dry
The Canadian National Carbon Co., Ltd., Toronto, Ont.

BATTERIES, Flashlight
The Canadian National Carbon Co., Ltd., Toronto, Ont.

BATTERIES, Storage
The Canadian National Carbon Co., Ltd., Toronto, Ont.

BEARINGS
*The Chapman Double Ball Bearing Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BEARINGS, bronze
*Tallman Brass & Metal Co., Hamilton, Ont.

BEARINGS, pillow block and upright
*Canadian Fairbanks-Morse Company, Ltd., Montreal, Que.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BEDS, camp folding
*Otterville Mfg. Co., Ltd., Otterville, Ont.

BEEF
E. W. Fearman Co., Ltd., Hamilton, Ont.

BELTING, chains
*Canadian Link-Belt Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BELTING, elevator
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.

BELTING, leather
The Beardmore Belting Co., Ltd., Toronto, Ont.
*J. L. Goodhue & Co., Danville, Que.
*Sadler & Howarth, Montreal.
*The D. K. McLaren Belting Co., Ltd., Montreal, Que.
*The J. C. McLaren Belting Co., Ltd., Montreal, Que.

BELTING, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha and Rubber Ltd., Toronto, Ont.

BELTING, stitched cotton duck
*Dominion Belting Co., Ltd., Hamilton, Ont.

BENT GOODS
The Crown Lumber Co., Woodstock, Ont.

BICYCLES AND ACCESSORIES
*Canada Cycle and Motor Co., Ltd., Toronto, Ont.

BISCUITS
The Montreal Biscuit Co., Montreal, Que.

BLACK SHEETS
*A. C. Leslie & Co., Montreal, Que.

BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
J. Walsham & Son, Ltd., Bolton, Ont,

BLANKETS, horse
Slingsby Mfg. Co., Ltd., Brantford, Ont.
J. Walsham & Son, Ltd., Bolton, Ont.

BLASTING ACCESSORIES
Canadian Explosives, Ltd., Montreal, Que.

BLEACHING POWDER
Canadian Salt Co., Ltd., Windsor Ont.

BLOWERS
*Sheldons, Ltd., Galt, Ont.
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

BOARDS, paper, fibre, press
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOATS OF ALL KINDS
Peterboro Canoe Co., Ltd., Peterboro, Ont.

BOBBINS
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.

BOILER COMPOUND
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOILER COMPOUND AND OILS
Electric Boiler Compound Co., Ltd., Guelph, Ont.

BOILER GRAPHITE
Black Donald Graphite Company, Limited, Calabogie, Ont.

BOILER LININGS AND COVERINGS
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOILERS
*M. Beatty & Sons, Ltd., Welland, Ont.
*Darling Bros., Montreal, Que.
*Goldie & McCulloch Co., Limited, Galt, Ont.
*Lauzon Engineering Ltd., Levis, Que.
*E. Leonard & Sons, Ltd., London, Ont.
J. & R. Weir, Montreal, Que.
Taylor-Forbes Co,, Ltd., Guelph,
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BOILERS, hot water or steam
Steel & Radiation Ltd., Toronto.
Warden King, Ltd., Montreal.

BOILERS, steam
Canadian Ingersoll-Rand Co., Sherbrooke, Que.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BOILERS, steam and brass work
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BOILER STANDS
Anthes Foundry Ltd., Toronto.

BOLSTERS
*Canadian Car & Foundry Co., Ltd., Montreal, Que.

BOLTS AND NUTS
*The Canadian Tube & Iron Co., Ltd., Montreal, Que.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Company of Canada, Ltd., Hamilton, Ont.
Starr Mfg. Co., Ltd., Dartmouth, N.S.

BOOKBINDERS
R. G. McLean, Toronto.
*The Brown Bros., Ltd., Toronto.
The Mortimer Co., Ltd., Ottawa, Ont.

BOOKCASES
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

BOOKCASES, sectional (Gunn)
The George McLagan Furniture Co., Ltd., Stratford, Ont.

BOOKLETS
R. G. McLean, Toronto.

BOOKS, blank
*The Brown Bros., Ltd., Toronto.

BOOTS AND SHOES
J. Leckie Co., Ltd.
The John Ritchie Co., Ltd., Quebec, Que.

BOXES
*Crouse-Hinds Co., Ltd., Toronto.

BOXES, cellular board
*Hinde & Dauch Paper Co. of Canada, Limited, Toronto.
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls.

BOXES, Fibre Board
*Hinde & Dauch Paper Co. of Canada, Limited, Toronto.

BOXES, rattle and soap
The Arlington Co. of Canada, Ltd., Toronto, Ont,

BOXES, steel shop
*Steel Trough and Machine Co., Ltd., Tweed, Ont.

BOXES AND SHOOKS, wooden
The C. Beck Mfg. Co., Ltd., Penatanguishene, Ont.

*For Display Advertisement see Index, Page 43

BOXES, wooden
G. & J. Esplen, Montreal, Que.
Barchard & Co., Ltd., Toronto.

BOXBOARDS, for making paper boxes
*Canada Boxboard Co., Limited, Montreal, Que.

BRAIDS AND TRIMMINGS
The Moulton Mfg. Co., Limited, Montreal, Que.

BRAKE SHOES
*Canadian Hart Wheels, Limited, Hamilton, Ont.

BRAKE SHOE BACKS
*The John Whitfield Company, Toronto, Ont.

BRANDS, burning
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

BRASS BOLTS AND NUTS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS AND BRONZE WIRE
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

BRASS, BRONZE and ALUMINUM LETTERS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS ENGRAVERS
Pritchard, Andrews Co, of Ottawa, Ltd., Ottawa, Ont.

BRASS FOUNDERS AND FINISHERS
*The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS GOODS
*The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Mueller Mfg. Co., Sarnia, Ont.
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
*The Kerr Engine Co., Limited, Walkerville, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS PLATES
Geo. Booth & Son, Toronto.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS RODS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS RODS, SHEETS AND PLATES
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.

BRASS SHEETS AND PLATES
*Dominion Copper Products Company, Ltd., Montreal, Que.

BRASS SIGNS AND MEMORIALS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS TUBING, seamless
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Company. Ltd., Montreal, Que.

BRASS WIRE
Canadian Seamless Wire Co., Ltd., Toronto.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS WORK, church
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

BRASS WORK, special
Bawden Machine Co., Ltd., Toronto, Ont.
*H. Mueller Mfg. Co., Ltd., Sarnia, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BRICK
*Interprovincial Pressed Brick Co. of Canada, Limited, Toronto.
National Brick Co. of Laprairie, Laprairie, Que.
Port Credit Brick Co., Port Credit, Ont.
The Citadel Brick & Paving Block Co., Ltd., Quebec, Que.

BRICK, enamel
National Brick Co. of Laprairie, Laprairie, Que.

BRICK, pressed
National Brick Co. of Laprairie, Laprairie, Que.
The Citadel Brick & Paving Block Co., Ltd. Quebec, Que.

BRICK, rubbing
*Canadian Hart Wheels, Limited, Hamilton, Ont.

BRICK, sewer.
National Brick Co. of Laprairie, Laprairie, Que.

BRIDGES, Railway and Highway
Canadian Des Moines Steel Co., Limited, Chatham.
*Hamilton Bridge Works Co., Ltd., Walkerville, Ont.
*The Canadian Bridge Co., Ltd., Hamilton, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*Dominion Bridge Co., Montreal.
*Mackinnon Steel Co., Ltd., Sherbrooke, Que.
*Manitoba Bridge & Iron Works, Ltd., Winnnpeg, Man,

BROOMS
Simms, T. S., & Co., Limited, St. John, N.B.
Stevens-Hepner Co., Limited, Port Elgin, Ont.

BRONZE SHEETS AND PLATES
*Dominion Copper Products Company, Ltd., Montreal.

BRONZE SHEETS, RODS, PLATES
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.

BRONZE TUBING, seamless
*Dominion Copper Products Company, Limited, Montreal,

BRUSHES
Simms, T. S., & Co., Limited, St. John, N.B.
Stevens-Hepner Co., Ltd., Port Elgin, Ont.

BRUSHES, carbon
Canadian National Carbon Co., Ltd., Toronto.

BUCKET TANKS
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*The Bennett & Wright Co., Ltd., Toronto, Ont.

BUCKLES, shoe and coat
Parmenter & Bulloch Co., Limited, Gananoque, Ont.

BUCKLES, harness and trunk
*McKinnon Industries, Ltd., St. Catharines, Ont.

BUILDING BLOCKS, vitrified, salt glazed
Standard Clay Products, Ltd., St. Johns, Que.

BUILDING FELT AND PAPER
*Beveridge Paper Co., Ltd., Montreal.
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont,
*The Barrett Co., Ltd., Toronto and Montreal.

BUNGS, wooden for barrels
Wm. H. White, Ville St. Pierre, Montreal, Que.

BURLAPS
The Canadian Bag Co., Limited, Montreal, Que.
*Scythes & Co., Ltd., Toronto.

BURLAPS, decorative
Dominion Oil Cloth Co., Limited, Montreal, Que.

CABLE ACCESSORIES
*Crouse-Hinds Co., Ltd., Toronto.

CABLES, electric light, power, telephone and telegraph
*Northern Electric Company, Limited, Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd,, Hamilton, Ont.

CABLES, transmission and telephones
*Eugene F. Phillips Electrical Works, Ltd., Montreal, Que.
*Northern Electric Company, Limited, Montreal, Que.

CABLES, transmission and cable
*Northern Electric Co., Ltd., Montreal, Que.

CABLES, wire
The Dominion Wire Rope Co., Ltd., Montreal, Que.
*The B. Greening Wire Co., Ltd., Hamilton, Ont.

CALENDARS, ADVERTISING NOVELTIES, etc.
Lawson & Jones, Ltd., London.

CAMERAS
Canadian Kodak Co., Ltd., Toronto, Ont.

CAMPERS' OUTFITTERS
Slingsby Mfg. Co., Ltd., Brantford, Ont.

CANADA SILVER
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.

CANOES
Peterboro Canoe Co., Ltd., Peterboro, Ont.
*Canadian Canoe Co., Ltd., Peterboro, Ont.

CANS, baking powder, etc.
American Can Co., Montreal (Que.) and Hamilton (Ont.).
A. R. Whittall Can. Co., Ltd., Montreal, Que.
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CANS, fruit
American Can Co., Montreal (Que.) and Hamilton (Ont.).
A. R. Whittall Can. Co., Ltd., Montreal, Que.
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CANS, iron, lead and putty
A. R. Whittall Can. Co., Ltd., Montreal, Que.

CANS, tin
A. R. Whittall Can Co., Ltd., Montreal, Que.
American Can Co., Montreal (Que.) and Hamilton (Ont.).
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CANVAS
*Scythes & Co., Ltd., Toronto, Ont.

CAPS, cloth
John W. Peck & Co., Ltd., Montreal, Que.

CAPS FOR HUBS
*McKinnon Industries, Ltd., St. Catharines, Ont.

CARBIDE
*Canada Carbide Co., Ltd., Montreal, Que.
*Union Carbide Co. of Canada, Ltd. Works, Welland, Ont. Head Office, Toronto, Ont.

CARBONS, electric
Canadian National Carbon Co., Ltd., Toronto, Ont.

CARBONS (headlight)
*Crouse-Hinds Co., Ltd., Toronto.

CARBONIC ACID GAS
Canadian Carbonate Co., Montreal.

CARD RECORD SYSTEMS
Lowe-Martin Co., Ltd., Ottawa, Ont.
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

CARPETS AND RUGS
Toronto Carpet Mfg. Co., Limited, Toronto.

CARPETS AND RUGS, Axminster and ingrain
Toronto Carpet Mfg. Co., Ltd.

CARPETS AND RUGS, Brussels and Wilton
Toronto Carpet Mfg. Co., Ltd., Toronto, Ont.

CARPET FELTS, plain and corrugated
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

CARPET YARNS, worsted and wool
Toronto Carpet Mfg. Co., Ltd., Toronto, Ont.

CARRIAGE CASTINGS
*McKinnon Industries, Ltd., St. Catharines, Ont.

CARRIAGES, baby, etc.
Canada Furniture Manufacturers, Ltd., Woodstock, Ont.

CARRIERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.

CARRIERS, box and barrel
*Canadian Mathews Gravity Carrier.

CARRIERS, brick
*Canadian Mathews Gravity Carrier Co., Limited, Toronto.
*Richards-Wilcox Canadian Co., Ltd., London, Ont.

CARS
*Canadian Car & Foundry Co., Ltd., Montreal, Que.
*National Steel Car Co., Ltd., Hamilton, Ont.

CARS, industrial
Hammant Steel Car & Engineering Works, Hamilton, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.

CARTONS, lithographed
Harris Lithographing Co., Ltd., Toronto, Ont.

CASTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.

CASTINGS, Alloy
*The Electric Steel & Metals Co., Ltd., Welland, Ont.

CASTINGS, aluminum
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Crouse-Hinds Co., Ltd., Toronto.
*Tallman Brass & Metal Co., Hamilton, Ont.

CASTINGS, brass
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Crouse-Hinds Co., Ltd., Toronto.
*Lauzon Engineering, Ltd., Levis, Que.
*Tallman Brass & Metal Co., Hamilton, Ont.

CASTINGS, brass and bronze
*Tallman Brass & Metal Co., Hamilton, Ont.

CASTINGS, grey iron
*Canadian Rumely Co., Ltd., Toronto, Ont.
*Crouse-Hinds Co., Ltd., Toronto.
*Dodge Mfg. Co., Toronto.
*Canadian Car & Foundry Co., Ltd., Montreal, Que.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*Wm. Kennedy & Sons, Ltd., Owen Sound, Ont.
*Lauzon Engineering, Ltd., Levis, Que.

CASTINGS, malleable iron
*Crouse-Hinds Co., Ltd., Toronto.
*Galt Malleable Iron Co., Ltd., Galt, Ont.

CASTINGS, steel
Beauchemin & Fils, Ltd., Sorel, Que.
*Canadian Steel Founderies, Ltd., Montreal, Que.
*Dominion Steel Foundry Co., Ltd., Hamilton, Ont.
*Electric Steel & Metals Co., Ltd., Welland, Ont.
*Hull Iron & Steel Foundry, Ltd., Hull, P.Q.
*Wm. Kennedy & Sons, Ltd., Owen Sound, Ont.

CATALOGUE MAKERS
Grip, Ltd., Toronto, Ont.

CATALOGUE COVERS, by new lithographing process
Harris Lithographing Co., Ltd., Toronto, Ont.

CAUSTIC SODA
Canadian Salt Co., Ltd., Windsor.

CAUSTICS
*Dominion Oil Co., Ltd., Hamilton.

CELLBOARD
Adams Cellboard Co., Toronto.

CEMENT GUNS
Steel & Radiation, Ltd., Toronto.

CEMENTS, High Temp.; plastic, liquid
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

CENTRIFUGAL PUMPS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

CHAINS, for elevators, conveyors and drives
*Canadian Link-Belt Co., Toronto.

CHAINS, sling
*The John Whitfield Co., Toronto.

CHAIRS
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

CHAIRS, assembly hall
Stratford Mfg. Co., Ltd., Stratford, Ont.

CHAIRS, folding
Stratford Mfg. Co., Ltd., Stratford, Ont.

CHAIRS, rattan and upholstered
Imperial Rattan Co., Ltd., Stratford, Ont.

CHAIRS FOR AUTOMOBILES, camp, boat
*McKinnon Industries, Ltd., St. Catharines, Ont.

CHECKS, swing checks, etc.
*Mueller Mfg. Co., Ltd., Sarnia, Ont.

CHEMICALS
Canadian Laboratory Supplies, Ltd., Toronto, Ont.
*Dominion Oil Co., Ltd., Hamilton, Ont.
*The Grasselli Chemical Co., Ltd., Toronto, Ont.
*The Nichols Chemical Co., Ltd., Montreal, Que.

CHEMISTS, industrial
*Milton Hersey Co., Montreal.

CHICLETS AND CHEWING GUM
Canadian Chewing Gum Co., Ltd., Toronto, Ont.

* For Display Advertisement see Index, Page 43

CIRCULAR CUTTERS, solid steel
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.
CIRCULAR SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
CLAM SHELL BUCKETS
*M. Beatty & Sons, Ltd., Welland, Ont.
CLAY, Ground.
*Interprovincial Brick Co. of Canada, Limited, Toronto.
CLOCKS, time
*International Business Machines Co., Ltd., Toronto.
CLOCKS, watchmen's
*The Bennett & Wright Co., Ltd., Toronto, Ont.
CLOSET SEATS
*Goderich Organ Co., Goderich, Ont.
CLOTHING
John W. Peck & Co., Ltd., Montreal, Que.
CLOTHING, leather and sheepskin lined coats
*A. R. Clarke & Co., Ltd., Toronto.
CLOTHING, Mackinaw
The Carss Mackinaw Clothing Co., Ltd., Orillia, Ont.
CLOTHES LINES, cotton
Hamilton Cotton Co., Hamilton, Ont.
CLUTCHES
*Dodge Mfg. Co., Ltd., Toronto.
CLUTCHES, conveyors
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
COAL
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Standard Fuel Co., Toronto, Ont.
COAL CUTTERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal.
COBALT OXIDE
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
The Coniagas Reduction Co., Ltd., St. Catharines, Ont.
COBALT METAL
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
COFFEE
S. H. Ewing & Sons, Montreal.
COLD DRAWN SHAPES, flats, squares and hexagons
*The Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*Union Drawn Steel Co.. Ltd., Hamilton, Ont.
COLD STORAGE DOORS
John Hillock & Co., Ltd., Toronto.
COLLAR BUTTONS
The Arlington Co. of Canada, Ltd., Toronto, Ont.
COLLARS
The Standard Shirt Co., Ltd., Montreal, Que.
COLLARS, coated linen
Parsons & Parsons Canadian Co., Hamilton, Ont.
COLLARS, shaft
Bond Engineering Co., Toronto.
COLORS
Brandram-Henderson, Ltd., Montreal, Que.
A. Ramsay & Son Co., Montreal.
COMBS, fine dressing and name
The Arlington Co. of Canada, Ltd., Toronto, Ont.
COMMERCIAL STATIONERY
*Brown Bros., Ltd., Toronto, Ont.
CONCRETE COATINGS, PAINTS, Etc.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
CONCRETE HARDENER AND WATERPROOFER
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
Sturgeons Limited, Toronto.
CONDUITS FOR INTERIOR WIRING
*Conduits Co., Ltd., Toronto, Ont.
CONDULET BOX FITTINGS
*Crouse-Hinds Co., Ltd., Toronto.
CONDULETS (marine)
*Crouse-Hinds Co., Ltd., Toronto.
CONFECTIONERY
Ganong Bros., Ltd., St. Stephens, N.B.
Moirs, Ltd., Halifax, N.S.
The Montreal Biscuit Co., Montreal, Que.

CONTAINER BOARD—strong container
Bathurst Lumber Co., Ltd., Bathurst, N.B.
CONTRACTOR'S PLANT
*M. Beatty & Sons, Ltd., Welland, Ont.
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
Canadian Ingersoll-Rand Co., Sherbrooke, Que.
CONVEYORS
*Canadian Link-Belt Co., Toronto.
*Canadian Mathews Gravity Carrier Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
COPPER
*Eugene F. Phillips, Electrical Works, Ltd., Montreal, Que.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Consolidated Mining & Smelting Co. of Canada, Ltd., Toronto.
COPPER, SHEETS, PLATES, BARS, RODS
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto, Ont.
COPPER SHEETS AND PLATES
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Co., Ltd., Montreal, Que.
COPPERSMITHS
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
COPPER TUBING, seamless
*Dominion Copper Products Co., Ltd., Montreal, Que.
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
COPPER WIRE
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
CORKS
S. H. Ewing & Sons, Montreal, Que.
CORK CARPET
Dominion Oil Cloth Co., Ltd., Montreal, Que.
CORRUGATED PAPER BOXES
*Hinde & Dauch Paper Co. of Canada, Limited, Toronto.
Adams Cellboard Co., Toronto.
Corrugated Paper Box Co., Ltd., Toronto, Ont.
*Hinde & Dauch Paper Co., Toronto, Ont.
*The Thompson & Norris Co. of Canada, Ltd.. Niagara Falls, Ont.
CORUNDUM, artificial
*Coralox, Ltd., Hamilton, Ont.
CORSETS
Dominion Corset Co., Quebec, Que.
COTTONS
*Dominion Textile Co., Ltd., Montreal, Que.
*Montreal Cottons, Ltd., Valleyfield. P.Q.
COTTONADES
Hamilton Cotton Co., Hamilton, Ont.
COUPLERS
*Canadian Steel Foundries, Ltd., Welland, Ont.
COUPLINGS
Bond Engineering Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
CRANES
*Northern Crane Works, Walkerville, Ont.
*The Herbert Morris Crane and Hoist Co., Ltd., Niagara Falls, Ont.
CRANKSHAFTS
Canada Forge Co., Ltd., Welland, Ont.
*The John Whitfield Co., Toronto, Ont.
CREAM CHEESE, Ingersoll
The Ingersoll Packing Co., Ltd., Ingersoll, Ont.
CREAM SEPARATORS AND MILK CLARIFIERS
De Laval Dairy Supply Co., Peterboro, Ont.
The Renfrew Machinery Co., Ltd., Renfrew, Ont.
CREAMERY AND CHEESE FACTORY MACHINERY AND SUPPLIES
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.

CREOSOTED MATERIALS
*The Barrett Co., Ltd., Toronto and Montreal.
CRUCIBLES, plumbago
Dominion Crucible Co., Ltd., Montreal, Que.
CRUSHED STONE
The Hagersville Contracting Co., Ltd., Hagersville, Ont.
CUPOLAS
*Sheldons, Ltd., Galt, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
CUPS, presentation
Standard Silver Co., Toronto, Ont.
CURLED HAIR
*Delany & Pettit, Ltd., Toronto.
CURTAINS, chenille
Hamilton Cotton Co., Hamilton, Ont.
CUTLERY
Standard Silver Co., Toronto, Ont.
CUTTERS, machine
*Pratt & Whitney Co., Dundas, Ont.
DASHES, for buggy and carriages
*McKinnon Industries, Ltd., St. Catharines, Ont.
DECALCOMANIA TRANSFERS
Canada Decalcomania Co., Toronto, Ont.
DECK PLUGS, electric marine
*Crouse-Hinds Co., Ltd., Toronto.
DENIMS
Hamilton Cotton Co., Hamilton, Ont.
DERAILS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
DESIGNERS
Ontario Engraving Co., Hamilton, Ont.
DESIGNERS AND PRINTERS OF BOOKLETS, Etc.
Grip, Ltd., Toronto, Ont.
DESKS
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
DESICCATED VEGETABLES
Grahams, Ltd., Belleville, Ont.
DINING ROOM SUITES
The George McLagan Furniture Co., Ltd., Stratford, Ont.
DIES
*Butterfield & Co.. Rock Island, P.Q.
*Pratt & Whitney Co., Dundas, Ont.
*John Whitfield Co., Toronto.
DISINFECTING APPARATUS
Spramotor Co., London, Ont.
DOOR HANGERS
*Richards Wilcox Canadian Co., Ltd., London, Ont.
DOUBLETREES
*McKinnon Industries, Ltd., St. Catharines, Ont.
DREDGES
*M. Beatty & Sons, Ltd., Welland, Ont.
DRESSING, belt
Sadler & Haworth, Montreal, Que.
DRESS AND CLOAK TRIMMINGS
J. Henry Peters Co., 1 Mincing St., Toronto, Ont.
DRIFT BOLT DRIVERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
DRILL PRESSES
*Canada Machinery Corporation, Ltd., Galt, Ont.
DRILL SHARPENERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
DRILLS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*Pratt & Whitney Co., Dundas, Ont.
DRILLS, pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
DRILLS, rock
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
DRILLS, Square or Hexagon
*Globe Engineering Co., Limited, Hamilton, Ont.
DRIFT BOLTS OR SPIKES
London Rolling Mill Co., Ltd., London, Ont.
DROP FORGINGS.
*Canadian Billings & Spencer, Ltd., Welland, Ont.
*McKinnon Industries, Ltd., St. Catharines, Ont.
DROP HAMMERS
*Canada Machinery Corporation, Ltd., Galt, Ont.

DRUMS, steel, and containers
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
DRY COLORS
P. D. Dods & Co., Ltd., Montreal.
The Imperial Varnish & Color Co., Ltd., Toronto.
R. C. Jamieson & Co., Ltd., Montreal, Que.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
DUMB WAITERS
Turnbull Elevator Mfg. Co., Toronto, Ont.
DURABLE WIRE ROPE
The Dominion Wire Rope Co., Ltd., Montreal, Que.
DYNAMITE
Canadian Explosives, Ltd., Montreal, Que.
DYNAMOS
Consolidated Electric Co., Ltd., Toronto, Ont.
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
DYNAMOS, plating
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
EIDERDOWN
Galt Knitting Co., Ltd., Galt, Ont.
ELECTRIC APPLIANCES
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
ELECTRICAL COMPOUNDS
Standard Paint Co. of Canada, Ltd., Montreal, Que.
ELECTRIC COOKING APPLIANCES
*Canadian General Electric Company, Ltd., Toronto.
ELECTRIC LAMPS
Packard Electric Co., Ltd., Toronto, Ont.
ELECTRIC PLATE WARE
Roden Bros., Ltd., Toronto, Ont.
ELECTRIC BRANDING TOOLS
*The Clemens Electrical Corporation of Canada, Ltd., Hamilton, Ont.
ELECTRIC RAILWAY EQUIPMENT
*Crouse-Hinds Co., Ltd., Toronto.
ELECTRODES, carbon
Canadian National Carbon Co., Ltd., Toronto, Ont.
ELECTROTYPING
Central Press Agency, Ltd., Toronto.
ELECTRICAL SUPPLIES
*Canadian General Electric Company, Ltd., Toronto, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
*Jones & Moore Electric Co., Ltd.,
*Northern Electric Co., Ltd., Montreal, Que.
ELECTRIC SOLDERING IRON
*The Clemens Electrical Corporation of Canada, Ltd., Hamilton, Ont.
ELECTRO-SILVER PLATED WARE
Standard Silver Co., Toronto, Ont.
ELEVATING MACHINERY
*Canadian Link-Belt Co., Toronto.
*Canadian Mathews Gravity Carrier Co., Toronto, Ont.
ELEVATORS
*Jenckes Machine Co., Sherbrooke, Que.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
Turnbull Elevator Mfg. Co., Toronto, Ont.
*The Waterous Engine Works Co., Ltd,, Brantford, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
ELEVATORS FOR ALL PURPOSES
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
ELEVATOR GATES AND DOORS
Turnbull Elevator Mfg. Co., Ltd., Toronto, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
ELEVATOR GUARDS
*The Geo. B. Meadows, Toronto.
Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
*Canada Wire and Iron Goods Co., Hamilton, Ont.

*For Display Advertisement see Index, Page 43

EMERY DRESSERS AND STANDS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
EMERY GRINDERS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
EMERY WHEELS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
EMERY WHEEL GUARDS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
ENAMELS
R. C. Jamieson & Co., Ltd., Montreal, Que.
The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
ENAMEL MANUFACTURERS AND DECORATORS
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
ENAMEL AND TIN WARE
McClary Mfg. Co., London, Ont.
ENGINES
*E. Leonard & Sons, Limited, London, Ont.
*Goldie & McCulloch Co., Lt., Galt, Ont.
J. & R. Weir, Montreal, Que.
*Lauzon Engineering, Ltd., Levis, Que.
*Sheldons, Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
ENGINES, gas and gasoline
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Goold - Shapley - Muir Co., Ltd., Brantford, Ont.
*Hamilton Motor Works, Ltd., Hamilton, Ont.
London Gas Power Co., Limited, London, Ont.
*Massey-Harris Co., Ltd., Toronto.
ENGINES, gasoline, tractor, plowing and threshing
*Sawyer-Massey Co., Ltd., Hamilton, Ont.
ENGINES, hoisting
*M. Beatty & Sons, Welland, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
ENGINES, marine, gasoline and kerosene
Bruce, Stewart & Co., Ltd., Charlottetown, P.E.I.
ENGINES, steam plowing and threshing
*Sawyer-Massey Co., Ltd., Hamilton, Ont.
ELECTRICAL AND GAS FIXTURES
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
*Tallman, Brass & Metal Co., Hamilton, Ont.
ELECTRIC HEATING APPLIANCES
*Canadian General Electric Co., Ltd., Toronto, Ont.
ENGRAVERS, photo
Grip, Ltd., Toronto, Ont.
Ontario Engraving Co., Hamilton, Ont.
The Mortimer Co., Ltd., Ottawa.
ENGRAVERS, half-tone
Grip, Ltd., Toronto.
Ontario Engraving Co., Hamilton, Ont.
ENGRAVERS, wood
Ontario Engraving Co., Hamilton, Ont.
ENGRAVERS AND PRINTERS steel plate
American Bank Note Co., Ottawa, Ont.
ENGRAVERS AND PRINTERS bank note
American Bank Note Co., Ottawa, Ont.
ENGRAVING
*J. L. Jones Engraving Co., Toronto, Ont.
ENGRAVING, copper and steel plate
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
ENSILAGE AND STRAW CUTTERS
J. Fleury's Sons, Aurora, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
EVAPORATED APPLES
Grahams, Ltd., Belleville, Ont.

ENVELOPES
Barber-Ellis Co., Ltd., Toronto.
Canada Envelope Co., Montreal, Que.
EVENERS, for 2, 3, 4, 6 and 8 horses
*McKinnon Industries, Ltd., St. Catharines, Ont.
EXCELSIOR
*Delany & Pettit, Ltd., Toronto.
EXCELSIOR PADS
Parmenter & Bulloch Co., Ltd., Gananoque, Ont.
EXPERTS IN PATENT CAUSES
Ridout & Maybee, Toronto, Ont.
EXPLOSIVES, high
Canadian Explosives, Ltd., Montreal, Que.
FACE PLATE JAWS
Ker & Goodwin, Brantford, Ont.
FACTORY SUPPLIES, cheese and creamery
De Laval Dairy Supply Co., Ltd., Montreal, Que.
FANS
*Sheldons, Ltd., Galt, Ont.
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
FARM POWER & LIGHT PLANTS
*Northern Electric Company, Limited, Montreal, Que.
FASTENERS, belt
*Sadler & Haworth, Montreal, Que.
FELTS, pulp and paper makers
Ayers, Ltd., Lachute Mills, P.Q.
*Beveridge Paper Co., Ltd., Montreal, Que.
FENCES AND GATES
*Dennis Wire & Iron Works Co., London, Ont.
*Canada Wire & Iron Goods Co., Hamilton, Ont.
FENCING AND GATES, woven wire
*Canada Wire and Iron Goods Co., Hamilton, Ont.
FENCING, wire
C. H. Johnson & Sons, Ltd., Montreal, Que.
FENDERS, for buggy and carriages
*McKinnon Industries, Ltd., St. Catharines, Ont.
FIBRE PAILS
*The E. B. Eddy Co., Ltd., Hull, Que.
FIBRE, Vulcanized
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
FIBREBRICK, Plastic, jointless
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
FILES
Henry Disston & Sons, Ltd., Toronto, Ont.
*The Nicholson File Co., Port Hope.
FILING CABINETS
*Office Specialty Co., Newmarket, Ont.
FILING EQUIPMENT, wood & steel
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
FILING SYSTEMS
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
Lowe-Martin Co., Ltd., Ottawa, Ont.
FIRE ALARMS
*Northern Electric Co., Ltd., Montreal, Que.
FIRE BRICK
Dominion Fire Brick & Clay Products, Ltd., Moose Jaw, Sask.
FIRE BRICK AND CLAY
Dominion Fire Brick & Clay Products, Ltd., Moose Jaw, Sask.
FIRECLAY
Jas. W. Foley & Co., St. John, N.B.
FIRE DOOR HARDWARE
Richards Wilcox Canadian Co., Ltd., London, Ont.
FIRE DOORS
*A. B. Ormsby Co., Ltd., Toronto.
*The Pedlar People, Ltd., Oshawa, Ont.
FIRE ENGINES
*Waterous Engine Works Co., Ltd., Brantford, Ont.
FIRE ESCAPES
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.

FIRE EXTINGUISHERS
*A. B. Ormsby Co., Ltd., Toronto.
*Booth-Coulter Copper & Brass Co., Ltd., Montreal, Que.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
FIRE FIGHTING APPARATUS
*Waterous Engine Works Co., Ltd., Brantford, Ont.
FIRE HOSE
*Canadian Consolidated Rubber Co. of Canada, Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber, Ltd., Toronto, Ont.
FIRE PREVENTION MATERIAL
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*Eureka Mineral Wool & Asbestos Co., Toronto.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
FIRE PROOF WINDOWS AND DOORS
*A. B. Ormsby Co., Ltd., Toronto.
*Pedlar People, Ltd., Oshawa, Ont.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
FIRE PROTECTION SYSTEMS
Canadian Des Moines Steel Co., Limited, Chatham.
FIRE SPRINKLER SYSTEMS
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
*Purdy Mansell Co., Toronto, Ont.
*H. G. Vogel Co., Montreal, Que.
FIRE AND WATER DEPARTMENT
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
The Garth Co., Montreal, Que.
FISH, Atlantic Sea-Foods
Maritime Fish Corporation, Ltd., Montreal, Que.
FITTINGS FOR SOIL PIPE
Anthes Foundry, Ltd., Toronto.
FITTINGS, steam
Warden King Ltd., Montreal, Que.
FIXTURES
*Crouse-Hinds Co., Ltd., Toronto.
FLAGS
*Scythes & Co., Ltd., Toronto, Ont.
FLANGES, for wheels
*McKinnon Industries, Ltd., St. Catharines, Ont.
FLOODLIGHTS, electric
*Crouse-Hinds Co., Ltd., Toronto.
FLOORING, hardwood
Seaman Kent Co., Ltd., Meaford, Ont.
FLOUR MILL MACHINERY
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
FLUE LINERS
Standard Clay Products, Ltd., St. Johns, Que.
FORGES
*Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
*Sheldons, Ltd., Galt, Ont.
FORGINGS
Canada Forge Co., Ltd., Welland, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*McKinnon Industries, Ltd., St. Catharines, Ont.
*The John Whitfield Co., Toronto.
FORGINGS, drop
*Canadian Billings & Spencer, Ltd., Welland, Ont.
*Dominion Forge & Stamping Co., Walkerville, Ont.
*McKinnon Industries, Ltd., St. Catharines, Ont.
FOUNDRY EQUIPMENT
*Northern Crane Works, Ltd., Walkerville, Ont.
FOUNTAIN FRUITS AND JUICES
J. J. McLaughlin, Ltd., Toronto.
FOUNTAINS, drinking
*Mueller Mfg. Co., Ltd., Sarnia, Ont.
FRICTION CLUTCH PULLEYS
*Dodge Mfg. Co., Ltd., Toronto.
FROGS AND CROSSINGS, manganese
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
FUEL
Standard Fuel Co., Toronto, Ont.
FUR GARMENTS, men's and women's
Holt, Renfrew, Ltd., Quebec.

FUR GOODS
John W. Peck & Co., Ltd., Montreal, Que.
FUR TRIMMINGS, ornaments and buttons
J. Henry Peters Co., 1 Mincing St., Toronto, Ont.
FURNACES
McClary Mfg. Co., London, Ont.
The Jas. Smart Mfg. Co., Ltd., Brockville, Ont.
FURNITURE, hall
The George McLagan Furniture Co., Ltd., Stratford, Ont.
FURNITURE, office
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.
FURNITURE, reed and rattan
Imperial Rattan Co., Ltd., Stratford, Ont.
FUSE BOXES
*Crouse-Hinds Co., Ltd., Toronto.
FUSE PLUGS AND FUSES, refillable
*The Clemens Electrical Corporation of Canada, Ltd., Hamilton, Ont.
FUSES
*Economy Fuse & Mfg. Co., Montreal, Que.
GALVANIZED IRON
*A. C. Leslie & Co., Montreal.
GALVANIZED SHEETS
*Dominion Sheet Metal Co., Hamilton, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
GALVANIZERS
Acme Stamping & Tool Works, Ltd., Hamilton, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*The Pedlar People, Ltd., Oshawa.
*McKinnon Industries, Ltd., St. Catharines, Ont.
GASOLINE ENGINES
*Ontario Wind & Pump Co., Ltd., Toronto, Ont.
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
London Gas Power Co., London, Ont.
GASOLINE FIRE ENGINES
*Waterous Engine Works Co., Ltd., Brantford, Ont.
GASOLINE STORAGE SYSTEMS, special underground
S. F. Bowser & Co., Toronto.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
GASOLINE
*The Imperial Oil Co., Ltd., Toronto, Ont.
GAUGES
*Brown Engineering Corporation, Toronto, Ont.
*John Whitfield Co., Toronto.
GEARS, cut
*Brown Engineering Corporation, Toronto, Ont.
*Hamilton Gear and Machine, Toronto.
*Winnipeg Gear & Engineering Co., Ltd., Winnipeg, Man.
*The John Whitfield Co., Toronto.
GELATINE
Canada Gelatine Co., Ltd., Brantford, Ont.
GENERATORS
*Canadian Crocker - Wheeler Co., Ltd., St. Catharines, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
GENERATORS, electric
*Canadian General Electric Co., Ltd., Toronto.
GILDING METAL
*Dominion Copper Products Co., Ltd., Montreal, Que.
GLASSWARE
Dominion Glass Co., Ltd., Montreal, Que.
GLASSWARE, cut
Roden Bros., Ltd., Toronto.
GLASS FOR BUILDINGS
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLASS BENDERS
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLASS, mirror
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLOVES AND MITTS
*A. R. Clarke & Co., Ltd., Toronto.
Craig, Cowan Co., Ltd., Toronto.

*For Display Advertisement see Index, Page 43

GLUE
Canada Glue Co., Ltd., Brantford, Ont.
*Delany & Pettit, Ltd., Toronto.
GOLD-FILLED WIRE AND PLATE
Canadian Seamless Wire Co., Toronto, Ont.
GOLD AND SILVER REFINERS
Canadian Seamless Wire Co., Toronto, Ont.
GRAIN CRUSHERS, rapid, easy
J. Fleury's Sons, Aurora, Ont.
GRAPE JUICE
J. J. McLaughlin, Ltd., Toronto.
The Welch Co., Ltd., St. Catharines, Ont.
GRAPHITE, lubricating
Black Donald Graphite Company, Limited, Calabogie, Ont.
GRATES
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
GRATES, revolving, anticlinker
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
GRAVITY CARRIERS
*Canadian Mathews Gravity Carrier Co., Toronto, Ont.
GREASES
*Dominion Oil Co., Ltd., Hamilton, Ont.
GRILLES, metal
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
GRINDER, bench
Bond Engineering Co., Toronto.
GRINDERS, portable
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
GRINDERS, pedestal and bench
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
GRINDING AND POLISHING MACHINERY
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
GRINDING WHEELS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
*The Dominion Abrasive Wheel Co., Ltd., New Toronto, Ont.
GRINDSTONES
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
GUARDS, conduiet
*Crouse-Hinds Co., Ltd., Toronto.
GUNN SECTIONAL BOOKCASES
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
GUY ANCHORS
B. J. Coghlin Co., Ltd., Montreal.
GUL RODS
*Crouse-Hinds Co., Ltd., Toronto.
GYPSUM, crushed
*Albert Mfg. Co., Hillsborough, N.B.
GYPSUM PRODUCTS
*Manitoba Gypsum Co., Ltd., Winnipeg, Man.
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
HACK SAW BLADES AND FRAMES
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HACK SAW MACHINES
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HALL FURNITURE
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
HAMS
F. W. Fearman Co., Ltd., Hamilton, Ont.
HAMES, steel and iron
*McKinnon Industries, Ltd., St. Catharines, Ont.
HANDLES (axe, pick, sledge hammers, etc.)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.
HANDLES, wood
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
*Toy products, Ltd., Farm Point, Que.
HAND SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HANGERS
Bond Engineering Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
HARDWARE
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.
The Jas. Smart Mfg. Co., Ltd., Brockville, Ont.
HARNESS
Lamontagne, Ltd., Montreal, Que.
HATS, men's straw
The Crown Hat Co., Ltd., Galt, Ont.
HARNESS HARDWARE
*McKinnon Industries, Ltd., St. Catharines, Ont.
HATS, ladies' and children's straw
The Crown Hat Co., Ltd., Galt, Ont.
HATS, ladies' and children's felt and beaver
The Crown Hat Co., Ltd., Galt, Ont.
HATS, ladies' felt and straw
Toronto Hat Mfg. Co., Toronto.
HAULAGE, wire rope
The Dominion Wire Rope Co., Ltd., Montreal, Que.
HEADING SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HEADLIGHT, electric
*Crouse-Hinds Co., Ltd., Toronto.
HEATERS
*Waterous Engine Works Co., Ltd., Brantford, Ont.
HEATERS, feed water
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
HEATING APPLIANCES
*C. A. Dunham Co., Ltd., Toronto.
*Sheldons, Ltd., Galt, Ont.
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
HEATING SYSTEMS
*C. A. Dunham Co., Ltd., Toronto.
HEMLOCK, union and oak sole
Breithaupt Leather Co., Ltd., Kitchener, Ont.
HESSIANS
The Canadian Bag Co., Ltd., Montreal, Que.
*Scythes & Co., Ltd., Toronto.
HINGES
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
HOISTS
*M. Beatty & Sons, Ltd., Welland, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
HOISTS, electric and pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*M. Beatty & Sons, Ltd., Welland, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
HOISTING MACHINERY
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*M. Beatty & Sons, Ltd., Welland, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
HOOKS, for logging chains
*McKinnon Industries, Ltd., St. Catharines, Ont.
HOSE, fire
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber, Ltd., Toronto, Ont.
HOSE, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Dunlop Tire & Rubber Goods Co., Ltd., Toronto.
*Gutta Percha & Rubber, Ltd.
HOUSES, factory made
Wm. H. White, Ville St. Pierre, Montreal, Que.
HUB CAPS
*McKinnon Industries, Ltd., St. Catharines, Ont.
HUBS, for Ford cars
*McKinnon Industries, Ltd., St. Catharines, Ont.
HYDRAULIC PRESSES
*Bawden Machine Co., Ltd., Toronto, Ont.
*William R. Perrin, Ltd., Toronto
HYDRO-ELECTRIC PLANTS
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
ICE CREEPERS
Parmenter & Bulloch Co., Ltd., Gananoque, Ont.
ICE-MAKING MACHINERY
The Linde Canadian Refrigeration Co., Ltd., Montreal, Que.
INCUBATORS AND BROODERS
Lee Mfg. Co., Ltd., Pembroke, Ont.
INGOT METALS
*Brown's Copper & Brass Rolling Mills, Ltd., New Toronto, Ont.
INSERTED TOOTH SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
INSULATING COMPOUNDS
The Imperial Varnish & Color Co., Ltd., Toronto.
INSULATING PAPERS
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
INSULATORS
*Crouse-Hinds Co., Ltd., Toronto.
INTERLOCKING RUBBER TILING
*Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd., Toronto, Ont.
INVERTS
Standard Clay Products, Ltd., St. Johns, Que.
IRON
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
IRON, refined bar
Starr Mfg. Co., Ltd., Dartmouth, N.S.
IRON AND STEEL BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
IRON STAIRWAYS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
IRONWORK, architectural
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
*Canada Wire & Iron Goods Co., Hamilton, Ont.
IRONWORK, ornamental
*Canada Wire & Iron Goods Co., Hamilton, Ont.
IRON, LEAD AND PUTTY
A. R. Whittall, Montreal, Que.
IRON PUMPS
*Medicine Hat Pump and Brass Mfg. Co., Medicine Hat, Alta.
JACKS
*Globe Engineering Co., Ltd., Hamilton, Ont.
JAM, canned goods, etc.
E. D. Smith & Son, Ltd.
JAPANS, enamels, etc.
A. Muirhead Co., Ltd., Toronto.
The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
JIGS AND TOOLS
*Brown Engineering Corporation, Toronto, Ont.
JOINTERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
JELLY POWDER
S. H. Ewing & Sons, Montreal.
JEWELRY, enamelled souvenir
Caron Bros., Montreal, Que.
JEWELRY, gold-filled
Caron Bros., Montreal, Que.
JOIST HANGERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
JUNCTION BOXES, cable
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
KELSEY WARM AIR GENERATOR
The Jas. Smart Mfg. Co., Limited, Brockville, Ont.
KEROSENE ENGINES
London Gas Power Co., Limited, London, Ont.
KILNS
*Sheldons, Ltd., Galt, Ont.
KINDLING
Standard Fuel Co., Toronto, Ont.
KNIFE GRINDERS
*Canada Machinery Corporation Ltd., Galt, Ont.
*W. H. Banfield & Sons, Toronto.
KNITTED GOODS
*Penman's, Ltd., Paris, Ont.
KNIVES
*Galt Knife Co., Ltd.
*The Peter Hay Knife Co., Ltd., Galt, Ont.
Simonds Canada Saw Co., Ltd., Montreal, Que.
KNIVES, pulp and paper
Henry Disston & Sons, Toronto.
*The Peter Hay Knife Co., Ltd., Galt, Ont.
KODAKS AND PHOTOGRAPHIC SUPPLIES
Canadian Kodak Co., Ltd., Toronto.
LABELS
Lawson & Jones, Ltd., London, Ont.
LABELS, lithographed
Harris Lithographing Co., Ltd., Toronto, Ont.
LABORATORY SUPPLIES
Canadian Laboratory Supplies, Ltd., Toronto.
LACE LEATHER
F. C. McCordick, St. Catharines Ont.
*Sadler & Haworth, Montreal, Que.
*The D. K. McLaren Belting Co., Ltd., Montreal, Que.
*The J. C. McLaren Belting Co., Ltd., Montreal, Que.
LADDERS
Stratford Mfg. Co., Ltd., Stratford,, Ont.
LADDERS, step
*Otterville Mfg. Co., Ltd., Otterville, Ont.
LADLES, foundry
*Northern Crane Works, Ltd., Walkerville, Ont.
LAMP GLOBES
*Crouse-Hinds Co., Ltd., Toronto.
LARD
F. W. Fearman Co., Ltd., Hamilton, Ont.
LATH
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
LATHE CHUCKS
Ker & Goodwin, Brantford, Ont.
LATHE-DOGS
Canadian Billings & Spencer, Ltd., Welland, Ont.
LATHES
*Canada Machinery Corporation, Ltd., Galt, Ont.
LAUNCHES
Peterboro Canoe Co., Ltd., Peterboro, Ont.
LAWN MOWERS
Taylor-Forbes Co., Ltd., Guelph, Ont.
LAWN SWINGS
Stratford Mfg. Co., Ltd., Stratford, Ont.
LAVATORIES, enameled
Amherst Foundry Co., Ltd., Amherst, N.S.
LAUNDRY SINKS
Amherst Foundry Co., Ltd., Amherst, N.S.
LEAD
*Consolidated Mining & Smelting Co. of Canada, Ltd., Toronto.
LEAD GRINDERS
Benjamin Moore & Co., Ltd., Toronto, Ont.
LEAD PIPE
*Hoyt Metal Co., Toronto, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
*The Canada Metal Co., Toronto.
LEAD SHEET
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
LEATHER
The Robson Leather Co., Ltd., Oshawa, Ont.
LEATHER, bookbinders'
Clarke & Clarke, Ltd., Toronto.
LEATHER DASHES & FENDERS
*McKinnon Industries, Ltd., St. Catharines, Ont.
LEATHER, fancy
Clarke & Clarke, Ltd., Toronto.
LEATHER GOODS
Lamontagne, Ltd., Montreal, Que.
LEATHER, hemlock, union and oak sole
The Breithaupt Leather Co., Ltd., Kitchener, Ont.
LEATHER, patent colt and side leather
*A. R Clarke & Co., Ltd., Toronto.
LEATHER, sheep skin, etc.
Clarke & Clarke, Ltd., Toronto.
LEATHER, upholstering
Clarke & Clarke, Ltd., Toronto.
LEATHER, upper
A. Davis & Son., Ltd., Kingston, Ont.
King Brothers Co., Ltd., Whitby, Ont.
LIGHTS, marine, side and port
*Crouse-Hinds Co., Ltd., Toronto.
LINK BELT, Ewart, and sawmill riveted
*Canadian Link-Belt Co., Toronto.

* For Display Advertisement see Index, Page 43

LINK BELTING
*The Dodge Mfg. Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

LINOLEUM
Dominion Oil Cloth Co., Ltd., Montreal, Que.

LITHOGRAPHED BUSINESS STATIONERY
Business Systems, Ltd., Toronto.

LITHOGRAPHERS
American Bank Note Co., Ottawa, Ont.
Harris Lithographing Co., Ltd., Toronto, Ont.
The Mortimer Co., Ltd., Ottawa, Ont.

LOCKERS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*Geo. B. Meadows, Wire, Iron and Brass Works Co., Toronto. Ont.

LOCOMOTIVE BLOCKS
Standard Clay Products, Ltd., St. Johns, Que.

LOCOMOTIVES, industrial
*Montreal Locomotive Works, Ltd., Montreal, Que.

LOCOMOTIVE & MARINE BRASS WORKS
The James Morrison Brass Mfg. Co., Ltd., Toronto.

LOGGING CHAIN HOOKS
*McKinnon Industries, Ltd., St. Catharines, Ont.

LOOSE LEAF BINDERS AND FORMS
Business Systems, Ltd., Toronto.

LOOSE LEAF SYSTEMS
Copeland-Chatterson Co., Ltd., Brampton, Ont.
Lowe-Martin Co., Ottawa, Ont.

LOOSE LEAF SUPPLIES
The Esdale Press, Ltd., Edmonton, Alta.

LUBRICATORS, steam sight feed
Penberthy Injector Co., Ltd., Windsor, Ont.

LUGS, for silos and water tanks
*Ontario Wind Engine & Pump Co., Ltd., Toronto.
*Otterville Mfg. Co., Ltd., Otterville, Ont.
*McKinnon Industries, Ltd., St. Catharines, Ont.

LUMBER
*Brown Corporation, La Tuque, Que.
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
G. & J. Esplen, Montreal, Que.

LUMBER, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

LUMBER, spruce and pine, cedar railway ties and shingles
Bathurst Lumber Co., Ltd., Bathurst, N.B.

LUMBERING BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.

LUMBER, red pine and spruce
Gillies Bros., Ltd., Braeside, Ont.

LUMBER, spruce, fir, larch and cedar
Fernie Lumber Co., Ltd., Fernie, B.C.

LUMBER, White pine
Gillies Bros., Ltd., Braeside, Ont.

MACHINE KNIVES
*Galt Knife Co., Ltd.
*E. C. Atkins & Co., Inc., Hamilton, Ont.
Henry Disston & Sons, Toronto.

MACHINE TOOLS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.

MACHINE WORK, special and repairs
*Canadian Rumely Co., Ltd., Toronto, Ont.
*The John Whitfield Co., Toronto.

MACHINERY AND UTENSILS FOR BAKERS
Fletcher Mfg. Co., Ltd., Toronto.

MACHINERY AND UTENSILS FOR CANDY
Fletcher Mfg. Co., Ltd., Toronto.

MACHINERY AND UTENSILS FOR ICE CREAM
Fletcher Mfg. Co., Ltd., Toronto.

MACHINERY, conveying
*Canadian Link-Belt Co., Toronto.
*Canadian Mathews Gravity Carrier Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

MACHINERY, flour mill
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

MACHINERY, grinding
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
J. & R. Weir, Montreal, Que.
*M. Beatty & Sons, Ltd., Welland.
*Northern Crane Works, Ltd., Walkerville, Ont.

MACHINERY, ice cream
J. J. McLaughlin, Ltd., Toronto.

MACHINERY, iron working
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.

MACHINERY, pulp mill
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

MACHINERY, punching and shearing
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.

MACHINERY, railroad and car-shop
*Canada Machinery Corporation, Ltd., Galt, Ont.
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*John Bertram & Sons Co., Ltd., Dundas, Ont.

MACHINERY, roadmaking
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
Sawyer-Massey Co., Ltd., Hamilton, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

MACHINERY, sawmill
The E. Long Mfg. Co., Ltd., Orillia, Ont.
P. Payette & Co., Pentanguishene, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Yates, P. B., Machine Co., Ltd., Hamilton, Ont.

MACHINERY, sheet metal working
Brown, Boggs Co., Ltd., Hamilton, Ont.
*Canada Machinery Corporation, Ltd., Galt, Ont.

MACHINERY, special
Bawdon Machine Co., Ltd., Toronto.
*The John Whitfield Co., Toronto, Ont.

MACHINERY, transmission
Bond Engineering Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
*Goldie & McCulloch Co., Ltd., Galt, Ont.

MACHINERY, woodworking
*Canada Machinery Corporation, Ltd., Galt, Ont.
*Yates, P. B., Machine Co., Ltd., Hamilton, Ont.
Preston Woodworking Machinery Co., Ltd., Preston, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

MACHINE WORK, special and repairs
*Canadian Rumely Co., Ltd., Toronto, Ont.
*John Whitfield Co., Toronto, Ont.

MACHINE WRENCHES
*Canadian Billings & Spencer, Ltd., Welland, Ont.

MACHINES, painting
Spramotor Co., London, Ont.

MAGNESITE
Canadian Carbonate Co., Montreal, Que.

MALLEABLE, for carriages
*McKinnon Industries, Ltd., St. Catharines, Ont.

MALLEABLE IRON CASTINGS
*McKinnon Industries, Ltd., St. Catharines, Ont.
Galt Malleable Iron Co., Ltd., Galt, Ont.

MALT
*Hiram Walker & Sons, Ltd., Walkerville, Ont.

MAPLE PRODUCTS
*Maples, Ltd., Toronto, Ont.

MARTINGALE RINGS AND SLIDE LOOPS
The Arlington Co. of Canada, Ltd., Toronto, Ont.

MATCHERS
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

MATCHES
*The E. B. Eddy Co., Ltd., Hull, Que.

MECHANICAL STOKERS
*The Jones Underfeed Stoker Co., Ltd., Toronto.

MEDICINES, patented and pharmaceutical
Dr. Ed. Morin & Cie., Ltd., Quebec.

METAL, babbitt
*Canada Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
Alonzo W. Spooner, Ltd., Port Hope, Ont.

METAL CEILINGS
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

METAL LATH
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.

METAL PACKING
*Garlock Packing Co., Hamilton, Ont.

METAL PROTECTIVE PAINTS
Sturgeons Limited, Toronto.

METAL, spinning and stamping
The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.

METAL SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

METAL SHINGLES
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

METAL STAMPINGS
Canadian Cartridge Co., Ltd., Hamilton, Ont.

METERS, water
Canadian Cartridge Co., Ltd., Hamilton, Ont.

MILK DEALERS' MACHINERY AND SUPPLIES
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.

MILLBOARD, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto.

MILLING CUTTERS
Pratt & Whitney Co. of Canada, Dundas, Ont.

MINING MACHINERY
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.

MITTS AND GLOVES, Indian, tan, red deerskins
Holt, Renfrew, Ltd., Quebec, Que.
A. R. Clarke & Co., Ltd., Toronto.

MIXERS, chocolate, dough and paint
Fletcher Mfg. Co., Ltd., Toronto.

MOCCASINS AND SLIPPERS, Indian tanned leathers
Holt, Renfrew, Ltd., Quebec, Que.

MORTISERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

MOTOR CARS
*Ford Co. of Canada, Ford, Ont.

MOTORS, electric
*Canadian General Electric Co., Ltd., Toronto, Ont.

MOTORS, electric (alternating current)
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Consolidated Electric Co., Ltd., Toronto, Ont.
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*T. & H. Electric Co., Hamilton, Ont.

MOTORS, electric (direct current)
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Consolidated Electric Co., Ltd., Toronto, Ont.
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*T. & H. Electric Co., Hamilton.

MOTORS, electric (repairing)
Consolidated Electric Co., Ltd., Toronto, Ont.
*T. & H. Electric Co., Hamilton.

MOTORS, pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

MOULDERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

NAILS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

NAILS, copper
Parmenter & Bullock Co., Ltd., Gananoque, Ont.

NAILS, wire
Parmenter & Bullock Co., Ltd., Gananoque, Ont.
The Graham Nail Works, Toronto.

NAPHTHA
*The Imperial Oil Co., Ltd., Toronto, Ont.

NECK YOKES
*McKinnon Industries, Ltd., St. Catharines, Ont.

NICKEL OXIDE
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
Coniagas Reduction Co., Ltd., St. Catharines, Ont.

NICKEL METAL
*Deloro Smelting & Refining Co., Ltd., Delore, Ont.

NIPPLES, for radiators
*McKinnon Industries, Ltd., St. Catharines, Ont.

NUTS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*United Brass & Lead, Ltd., Toronto, Ont.

OAKUM, plumbers, Canadian Navy
Factory Waste & Metal Co., Montreal, Que.
*Scythes & Co., Ltd., Toronto, Ont.

OARLOCKS
*McKinnon Industries, Ltd., St. Catharines, Ont.

OAT CRUSHERS AND FLAKERS
J. Fleury's Sons, Aurora, Ont.

OFFICE DESKS
*Goderich Organ Co., Goderich, Ont.

OFFICE EQUIPMENT
Lowe-Martin Co., Ltd., Ottawa, Ont.
*Office Specialty Co., Newmarket, Ont.

OFFICE FURNITURE
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

OILS
Brandram-Henderson, Ltd., Montreal, Que.
A. Ramsay & Son Co., Montreal, Que.
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que.

OIL FILTRATION AND CIRCULATING SYSTEMS
S. F. Bowser & Co., Toronto, Ont.

OIL STORAGE SYSTEMS, self-measuring
S. F. Bowser & Co., Toronto.

OIL COMPANIES
*Canadian Oil Cos., Toronto.
Commercial Oil Co., Ltd., Hamilton, Ont.
*Imperial Oil Co., Toronto.

OILS (petroleum products)
*British American Oil Co., Ltd., Toronto, Ont.
*Dominion Oil Co., Ltd., Hamilton, Ont.
*The Imperial Oil Co., Toronto.

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OILS, road
*The Barrett Co., Ltd., Toronto and Montreal.
OIL HOLE COVERS
*Canadian Winkley Co., Ltd., Windsor, Ont.
OIL CUPS, both screw top and hinge lid
*Canadian Winkley Co., Ltd., Windsor, Ont.
OILCLOTHS, floor and table
Dominion Oil Cloth Co., Ltd., Montreal, Que.
ORGANS
Casavant Freres, Limitee, St. Hyacinthe, Que.
*Goderich Organ Co., Goderich, Ont.
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
ORGANS, pipe
Casavant Freres, Limitee, St. Hyacinthe, Que.
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
ORGANS, parlor
*Goderich Organ Co., Goderich, Ont.
ORNAMENTAL IRON WORK
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*The Geo. B. Meadows, Toronto Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
OVERALLS
Peerless Overall Co., Rock Island, Que.
Walker Pant & Shirt Co., Walkerville and Chatham, Ont.
The Standard Shirt Co., Ltd., Montreal, Que.
OVERCOATINGS
Rosamond Woollen Co., Almonte, Ont.
OVERHEAD RUNWAYS
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
OXY-ACETYLENE WELDING
*L'Air Liquide Society, Montreal, Que.
*The Prest-O-Lite Co., Inc., Toronto.
OXYGEN
*L'Air Liquide Society, Montreal, Que.
PACKING BOXES
Barchard & Co., Ltd., Toronto.
PACKING, engine
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Garlock Packing Co., Hamilton, Ont.
PACKING, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber Mfg. Co. of Toronto, Ltd.
Jenkins Bros., Ltd., Montreal, Que.
PAILS AND TUBS, wooden
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
PAINTERS' SUPPLIES
A. Muirhead Co., Ltd., Toronto.
PAINTS
R. C. Jamieson & Co., Ltd., Montreal, Que.
PAINTS AND VARNISHES
A. Muirhead Co., Ltd., Toronto.
Benjamin Moore & Co., Ltd., Toronto, Ont.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
The Staneland Co., Ltd., Victoria, B.C.
A. Ramsay & Sons Co., Montreal, Que.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
PAINTS, barn and bridge
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
PAINTS, preservative
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
*The Barrett Co., Ltd., Toronto and Montreal.

PANELBOARDS
*Crouse-Hinds Co., Ltd., Toronto.
PAPER, bags, all kinds
*Beveridge Paper Co., Ltd., Montreal.
PAPER, book
Barber Paper & Coating Mills, Ltd., Georgetown, Ont.
PAPER BOXES
King Paper Box Co., Ltd., Montreal, Que.
*Rudd Paper Box Co., Ltd., Toronto, Ont.
PAPER, coated, book and label
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, coated box board
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, coated cover
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, envelope
*Provincial Paper Mills, Ltd., Georgetown, Ont.
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPER, enamelled blotting
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, label
*Provincial Paper Mills, Ltd., Georgetown, Ont.
PAPER, ledger
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPERBOARDS
*Canada Boxboard Co., Ltd., Montreal, Que.
PAPER, super-book
The Toronto Paper Mfg. Co., Cornwall, Ont.
PAPER, wall
Stauntons, Ltd., Toronto.
PAPER, waxed
Business Systems, Ltd., Toronto.
PAPER, writing
The Toronto Paper Mfg. Co., Cornwall, Ont.
Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
PAPERS, bond
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
PAPERS, building
Bathurst Lumber Co., Ltd., Bathurst, N.B.
*The Riordon Pulp & Paper Co., Montreal, Que.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
PARCHMENT PAPER, for wet packing
*Beveridge Paper Co., Ltd., Montreal.
PARK SEATS
Stratford Mfg. Co., Ltd., Stratford, Ont.
PARLOR SUNDRIES
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
PATENTS
Fetherstonhaugh & Co., Toronto.
Ridout & Maybee, Toronto, Ont.
*Harold C. Shipman & Co., Ottawa.
PATENT LITIGATION
Ridout & Maybee, Toronto, Ont.
*Harold C. Shipman & Co., Ottawa, Ont.
PATTERN MAKERS' BRASS DOWEL PINS
*Canadian Winkley Co., Ltd., Windsor, Ont.
PAY ROLL AUDITS
*International Business Machines, Ltd., Toronto, Ont.
PERFORATED METALS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
PERFORATED MUSIC ROLLS
The Otto Higel Co., Ltd., Toronto.
PERFUMES AND TOILET PREPARATIONS
Sovereign Perfumes, Ltd., Toronto.

PETROLEUM PRODUCTS
*The Imperial Oil Co., Ltd., Toronto, Ont.
PHOTO MAILERS
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.
PIANOS
Dominion Organ & Piano Co., Ltd., Bowmanville, Ont.
*Gourlay, Winter & Leeming, Toronto, Ont.
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
PIANO ACTIONS
The Otto Higel Co., Ltd., Toronto.
PIANO KEYS
The Otto Higel Co., Ltd., Toronto.
PIANOS, player
*Gourlay, Winter & Leeming, Toronto, Ont.
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
PIANO, player actions
The Otto Higel Co., Ltd., Toronto.
PIANO STOOLS AND BENCHES
*Goderich Organ Co., Goderich, Ont.
PIG IRON
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
M. A. Hanna & Co., Toronto.
PINS, society, emblems and badges
Caron Bros., Montreal, Que.
PIPE, cast iron, for water and gas
National Iron Works, Ltd., Toronto, Ont.
PIPE COUPLINGS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
PIPE COVERINGS
*Eureka Mineral Wood & Asbestos Co., Toronto, Ont.
PIPE ORGANS
Karn-Morris Piano & Organ Co., Ltd., Woodstock, Ont.
PIPES, culvert
Standard Clay Products, Ltd., St. John's, Que.
*The Pedlar People, Ltd., Oshawa, Ont.
PIPE AND NIPPLES, black and galvanized
*Canadian Tube & Iron Co., Ltd., Montreal, Que.
PIPE, sewer
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.
Standard Clay Products, Ltd., St. John's, Que.
PIPE, soil and fittings
Anthes Foundry, Ltd., Toronto and Winnipeg.
Warden King Ltd., Montreal, Que.
PIPE AND TUBES, wrought
*Page-Hersey Iron Tube & Lead Co., Ltd., Toronto, Ont.
PISTON RODS
*The Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*Union Drawn Steel Co., Ltd., Hamilton, Ont.
PLANERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
PLANING MILLS
G. & J. Esplen, Montreal, Que.
PLASTERING TROWELS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
PLOWS
J. Fleury's Sons, Aurora, Ont.
PLUGS
*Crouse-Hinds Co., Ltd., Toronto.
PLUMBAGO, CRUCIBLES AND STOPPER HEADS
Dominion Crucible Co., Ltd., Montreal, Que.
PLUMBERS' SUPPLIES
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
PLUMBING APPLIANCES
Standard Sanitary Mfg. Co., Ltd., Toronto, Ont.
PLUMBING SUPPLIES
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
PNEUMATIC DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
PNEUMATIC MACHINERY
*Canadian Ingersoll-Rand Co., Sherbrooke, P.Q.

POLE LINE MATERIAL (wooden insulator top pins, side blocks, pole steps, cross arms)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.
POLES, flag
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
POLES, telegraph and telephone, cedar
Fernie Lumber Co., Ltd., Fernie, B.C.
PORK PACKERS AND CHEESE EXPORTERS
The Ingersoll Packing Co., Ltd., Ingersoll, Ont.
POSTS, split cedar fence
Fernie Lumber Co., Ltd., Fernie, B.C.
POULTRY SUPPLIES AND MEDICINES
Lee Mfg. Co., Ltd., Pembroke, Ont.
POWDER, blasting
Canadian Explosives, Ltd., Montreal, Que.
POWER PRESSES
Hydraulic Machinery Co., Ltd., Montreal, Que.
*William R. Perrin, Ltd., Toronto.
PRESERVATIVE PAINT
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
PRESSES, baling and filter
*William R. Perrin, Ltd., Toronto.
PRESSES, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.
PRESSES, sheet metal stamping
Brown, Boggs Co., Ltd., Hamilton, Ont.
*Canada Machinery Corporation, Ltd., Galt, Ont.
PRESSES, veneer
*Canada Machinery Corporation, Ltd., Galt, Ont.
PRESSED STEEL AND BRASS GREASE CUPS
*William R. Perrin, Ltd., Toronto.
PRINTERS
Rous & Mann, Ltd., Toronto, Ont.
The Mortimer Co., Ltd., Ottawa, Ont.
PRINTING AND LITHOGRAPHING
Lawson & Jones, Ltd., London, Ont.
PULLEYS
Bond Engineering Co., Toronto.
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
PULLEYS, wood split
*Bernard Industrial Co., Fortierville, P.Q.
PULP, bleached sulphite
The Edward Partington Pulp & Paper Co., St. John, N.B.
Riordan Sales Co., Ltd., Montreal, Que.
PULP, unbleached sulphite
Riordan Sales Co., Ltd., Montreal.
PULP, sulphate and sulphite
Bathurst Lumber Co., Ltd., Bathurst, N.B.
PULP
*Brown Corporation, La Tuque, Que.
PULP AND PAPER MILL MACHINERY
*The Hydraulic Machinery Co., Limited, Montreal.
PUMPS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
*Bawden Machine Co., Ltd., Toronto, Ont.
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*E. Leonard & Sons, Ltd., London, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
Spramotor Co., London, Ont.
*The Electric Steel & Metals Co., Ltd., Welland, Ont.
PUMPS, boiler feed
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Bawden Machine Co., Ltd., Toronto, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

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PUMPS, centrifugal
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*M. Beatty & Sons, Ltd., Welland, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Dominion Forge & Stamping Co., Ltd., Walkerville, Ont.
*Wentworth Mfg. Co., Hamilton.

PUMPS, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.

PUMPS, turbine and reciprocating
*Bawden Machine Co., Ltd., Toronto, Ont.
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

PUNCHES
*John Whitfield Co.,Toronto, Ont.
*Pratt & Whitney Co., Dundas,Ont.

PYROMETERS
*Canadian Hoskins Co., Walkerville, Ont.

RADIATORS
Taylor-Forbes Co., Ltd., Guelph, Ont.
Warden King, Ltd., Montreal, Que.

RAILINGS, brass and iron
*Dennis Wire & Iron Works Co., London, Ont.

RAILS, light
Hammant Steel Car & Engineering Works, Hamilton, Ont.

RAILWAY SIGNAL APPLIANCES
General Railway Signal Co. of Canada, Ltd., Montreal, Que.

RAILWAY SUPPLIES
*Canadian Steel Foundries, Ltd., Montreal, Que.
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
B. J. Coghlin Co., Ltd., Montreal, Que.

RAILWAY TARIFF BINDERS
The Esdale Press, Ltd., Edmonton, Alta.

READY-TO-WEAR GARMENTS, ladies'
H. C. Boulter Co., Ltd., Toronto.

REAMERS
*Pratt & Whitney Co., Dundas, Ont.
*Butterfield & Co., Rock Island, P.Q.

RECEPTACLES
*Crouse-Hinds Co., Ltd., Toronto.

REED AND RATTAN GOODS
Canada Furniture Mfgs., Ltd., Woodstock, Ont.

REFRIGERATORS
Sanderson-Harold Co., Ltd., Paris, Ont.
Lee Mfg. Co., Ltd., Pembroke, Ont.

REFRIGERATING MACHINERY
The Linde Canadian Refrigeration Co., Ltd., Montreal, Que.

REFRIGERATORS, store, homes and institutions
Ham & Nott Co., Ltd., Brantford, Ont.
John Hillock & Co., Ltd., Toronto.

REINFORCEMENT BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*Trussed Concrete Steel Co., Ltd., Walkerville, Ont.

REINFORCEMENT FOR CONCRETE
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.

REINFORCEMENT FOR CONCRETE ROOFING, metal
*The Pedlar People, Ltd., Oshawa, Ont.
*Trussed Concrete Steel Co., Ltd., Walkerville, Ont.

REVOLVING DOORS
*A. B. Ormsby Co., Ltd., Toronto.

RINGS, gold
Caron Bros., Montreal, Que.

RIVETERS, pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

RIVETS
*Canadian Tube & Iron Co., Ltd., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*Stowell Screw Co., Ltd., Montreal.

RIVETS, bifurcated and tubular
Parmenter & Bullock Co., Ltd., Gananoque, Ont.

RIVETS AND BURRS, iron, copper and brass
Parmenter & Bullock Co., Ltd., Gananoque, Ont.

ROCK DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

ROLLING STEEL DOORS
*A. B. Ormsby Co., Ltd., Toronto.

ROLL PRINTING
*Autographic Register Co., Ltd., Montreal, Que.
Business Systems, Ltd., Toronto.

ROOFING, metal
*A. B. Ormsby Co., Ltd., Toronto.

ROOFINGS, plastic, liquid, rubber
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

ROOFING, ready to lay
Pacific Roofing Co., Vancouver, B.C.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
*The Barrett Co., Ltd., Toronto and Montreal.

ROOF TRUSSES
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
*Dominion Bridge Co., Ltd., Montreal, Que.

ROPE
*Doon Twines, Ltd., Doon, Ont.
*Shurly & Derrett, Ltd., Toronto.

ROPE, cotton
Hamilton Cotton Co., Hamilton, Ont.

RUBBER FOOTWEAR
*Gutta Percha & Rubber Ltd., Toronto, Ont.
The Miner Rubber Co., Ltd., Grandy, Que.

RUBBER GOODS
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber Limited, Toronto.

RUBBER MACHINERY
*The Hydraulic Machinery Co., Limited, Montreal.

RUBBER MOULDS
Bawden Machine Co., Ltd., Toronto, Ont.

RUBBER PACKING
*Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Garlock Packing Co., Hamilton, Ont.

RULES
The Lufkin Rule Co. of Canada, Ltd., Windsor, Ont.

SADDLERY HARDWARE
*Dominion Forge & Stamping Co., Walkerville, Ont.
*McMinnon Industries, Ltd., St. Catharines, Ont.

SAFES
*Goldie & McCulloch Co., Ltd., Galt, Ont.
J. & J. Taylor, Ltd., Toronto.

SAMPLE CASES
The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.
J. Eveleigh & Co., Ltd., Montreal, Que.

SAND RAMMERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

SANDPAPER
*Delaney & Pettit, Ltd., Toronto.

SASH CORD, cotton
Hamilton Cotton Co., Hamilton, Ont.

SALT
Canadian Salt Co., Ltd., Windsor, Ont.
Dominion Salt Co., Ltd., Sarnia, Ont.

SANITARY PAPER TOWELS
*E. B. Eddy Co., Ltd., Hull, Que.

SAVE-ALLS
*The Hydraulic Machinery Co., Limited, Montreal.

SAW SHARPENING MACHINERY
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

SAWS
*E. C. Atkins & Co., Ltd., Hamilton, Ont.
Henry Disston & Sons, Ltd., Toronto, Ont.
Shurly & Deitrich, Galt, Ont.

SAWS, cross-cut and band
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
Shurly & Deitrich, Galt, Ont.

SAWS, circular mill
Shurly & Deitrich, Galt, Ont.

SAWS, hack
*Victor Saw Works, Ltd., Hamilton, Ont.

SAWS, of all kinds
Simonds Canada Saw Co., Ltd., Montreal, Que.

SAWS, rip
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
Shurly & Deitrich, Galt, Ont.

SAWMILLS
G. & J. Esplen, Montreal, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

SAW MILL MACHINERY
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.

SAWS, specialties
*Victor Saw Works, Ltd., Hamilton, Ont.

SCALES
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
The Gurney Scale Co., Hamilton, Ont.

SCALES, counter
The Gurney Scale Co., Hamilton, Ont.

SCALES, railway track, etc.
The Gurney Scale Co., Hamilton, Ont.

SCREENS
*Canada Wire & Iron Goods Co., Hamilton, Ont.

SCREEN DOORS AND WINDOWS
Sanderson-Harold Co., Ltd., Paris, Ont.
Ham & Nott Co., Ltd., Brantford, Ont.

SCREWS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*Stowell Screw Co., Ltd., Montreal, Que.

SCREW PLATES
*Butterfield & Co., Rock Island, P.Q.

SECURITIES, engraved
American Bank Note Co., Ottawa, Ont.

SERGES
Rosamond Woollen Co., Almonte, Ont.

SEWAGE SCREENS
*The Hydraulic Machinery Co., Limited, Montreal.

SHAFTING
Canada Forge Co., Ltd., Welland, Ont.
Bond Engineering Co., Toronto.
*Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*Union Drawn Steel Co., Ltd., Hamilton, Ont.
*Dodge Mfg. Co., Ltd., Toronto.

SHANTY BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.

SHAPERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

SHEAR BLADES, iron
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.

SHEATHING
*The Barrett Co., Ltd., Toronto and Montreal.

SHEATHING, asbestos corrugated
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

SHEET METAL STAMPINGS
Acme Stamping & Tool Works, Ltd., Hamilton, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.
*W. H. Banfield & Sons, Ltd., Toronto, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

SHEETS, Etc.
*Tallhan Brass & Metal Co., Hamilton, Ont.

SHEETS, galvanized
*Dominion Sheet Metal Co., Ltd., Hamilton, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.

SHINGLES
Bathurst Lumber Co., Ltd., Bathurst, N.B.

SHINGLE SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

SHINGLE STAINS
Sturgeons, Limited, Toronto.

SHIP BUILDERS
J. & R. Weir, Montreal, Que.

SHIRTS
John W. Peck & Co., Ltd., Montreal, Que.

SHIRTS, workmen's
*A. R. Clarke & Co., Ltd., Toronto.

SHOE PEGWOOD
O. Chalifour, Quebec, Que.

SHOE LININGS
Galt Knitting Co., Ltd., Galt, Ont.

SHOOKS
Barchard & Co., Ltd., Montreal.

SIGNAL CELLS
Canadian National Carbon Co., Ltd., Toronto.

SILENT CHAIN DRIVES
*Canadian Link-Belt Co., Toronto.

SILVER BULLION
Coniagas Reduction Co., Ltd., St. Catharines, Ont.
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.

SILVERSMITH
Canadian Wm. A. Rogers, Ltd., Toronto, Ont.
Standard Silver Co., Toronto, Ont.

SILVERWARE, sterling
Roden Bros., Ltd., Toronto, Ont.

SINGLETREES
*McKinnon Industries, Ltd., St. Catharines, Ont.

SINKS, enamelled
Amherst Foundry Co., Ltd., Amherst, N.S.

SKATES, figure
Canada Cycle & Motor Co., Ltd., Toronto, Ont.

SKATES, genuine Acme
Canada Cycle & Motor Co., Ltd., Toronto, Ont.

SKATES, hockey
Canada Cycle & Motor Co., Ltd., Toronto, Ont.

SKATES, ice
Canada Cycle & Motor Co., Ltd., Toronto, Ont.

SKIFFS
Peterboro Canoe Co., Ltd., Peterboro, Ont.

SKYLIGHTS
*A. B. Ormsby Co., Ltd., Toronto.
*The Pedlar People, Ltd., Oshawa, Ont.

SLEIGHS
Tudhope-Anderson Co., Ltd., Orillia, Ont.

SLOTTERS
*Canada Machinery Corporation, Ltd., Galt, Ont.

SMALL METAL STAMPINGS, in quantities
*Canadian Winkley Co., Ltd., Windsor, Ont.

SMOKE CONSUMERS
*The Jones Underfeed Stoker Co., Ltd., Toronto, Ont.

SMOKE-STACKS
*E. Leonard & Sons, Limited, London, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.

SNAPS, for harness
*McKinnon Industries, Ltd., St. Catharines, Ont.

SOAPS
J. Barsalou & Co., Ltd., Montreal.

SOAP (soft, oil)
The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
Sherwin-Williams Co. of Canada, Ltd., Montreal, Que.

SOCKETS
*Crouse-Hinds Co., Ltd., Toronto.

SODA WATER FOUNTAINS
J. J. McLaughlin, Ltd., Toronto.

SODA WATER FOUNTAINS AND ACCESSORIES
Fletcher Mfg. Co., Ltd., Toronto.

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SOIL PIPE
Anthes Foundry, Ltd., Toronto.
SOLDER
Alonzo W. Spooner, Ltd., Port Hope, Ont.
*Canada Metal Co., Toronto, Ont.
*Hoyt Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
SOLDER, silver
Geo. H. Lees & Co., Hamilton, Ont.
SOLDER, wire and bar
*American Can Co., Montreal, and Hamilton.
SOLDERING IRONS AND COPPERS
Brown, Boggs Co., Ltd., Hamilton,
SNOWSHOES
Holt, Renfrew, Ltd., Quebec, Que.
SPECIAL MACHINERY
*Globe Engineering Co., Ltd., Hamilton, Ont.
SPELTER
*Consolidated Mining & Smelting Co. of Canada, Ltd., Toronto.
SPIKES, railway and marine
Starr Mfg. Co., Ltd., Dartmouth, N.S.
SPINNING AND STAMPING
Tallman Brass & Metal, Ltd., Hamilton, Ont.
SPIRAL CONVEYORS
*Canadian Mathews Gravity Carrier Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
SPLIT PEAS
H. Murton, Ltd., Guelph, Ont.
SPIRITS
*Hiram Walker & Sons, Ltd., Walkerville, Ont.
SPOOLS
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
SPORTING MEDALS AND TROPHIES
Roden Bros., Ltd., Toronto, Ont.
SPRAYERS
Spramotor Co., London, Ont.
SPRING COTTERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
SPRINGS
*Canadian Steel Foundries, Ltd., Montreal, Que.
B. J. Coghlin Co., Ltd., Montreal.
Guelph Spring & Axle Co., Ltd., Guelph, Ont.
SPRINGS, carriage and automobile
Guelph Spring & Axle Co., Ltd.,
SPRING SHACKLE BOLTS
*Canadian Winkley Co., Ltd., Windsor, Ont.
John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
SPRINKLER SYSTEMS
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
*Purdy, Mansell, Ltd., Toronto.
*Vogel Co. of Canada, Ltd., Montreal, Que.
SPROCKET WHEELS
*Canadian Link Belt Co., Ltd., Toronto, Ont.
STAINS
R. C. Jamieson & Co., Ltd., Montreal, Que.
STAINS, creosote shingle
A. Muirhead Co., Ltd., Toronto.
STAMPINGS
STAMPINGS, heavy steel
Canadian Cartridge Co., Ltd., Hamilton, Ont.
STAMPS, steel, brass and rubber
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
STAMP MILLS
*Jenckes Machine Co., Sherbrooke, P.Q.
STATIONERY, office
Harris Lithographing Co., Toronto.
STEAM PIPE AND BOILER COVERINGS, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto.
STEAM SHOVELS
*M. Beatty & Sons, Ltd., Welland, Ont.
STEAM SPECIALTIES
*C. A. Dunham Co., Ltd., Toronto.
*Darling Bros., Ltd., Montreal, Que.
*Sheldons, Ltd., Galt, Ont.
STEAM TRAPS
*C. A. Dunham Co., Ltd., Toronto.
*Canadian Morehead Mfg. Co., Ltd., Woodstock, Ont.

STEEL
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
*Burlington Steel Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
STEEL BILLETS AND BLOOMS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STEEL BUILDINGS
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
*Dominion Bridge Co., Ltd., Montreal, Que.
*Maritime Bridge Co., Ltd., New Glasgow, N.S.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, P.Q.
*The Pedlar People, Ltd., Oshawa, Ont.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
STEEL CABINETS
J. & J. Taylor, Ltd., Toronto, Ont.
STEEL CASTINGS
Beauchemin & Fils, Ltd., Sorel, Que.
*Canadian Steel Foundries, Ltd., Montreal, Que.
*Dominion Steel Foundry Co., Ltd., Hamilton, Ont.
*Electric Steel & Metals Co., Ltd., Welland, Ont.
STEEL DOORS, rolling
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
STEEL FILING EQUIPMENT
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
STEEL PLATE WORK
*MacKinnon Steel Co., Limited, Sherbrooke, P.Q.
*Toronto Iron Works, Ltd., Toronto.
STEEL RODS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STEEL SASH
*Dennis Wire & Iron Works Co., London, Ont.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
STEEL SHELVING
*Dennis Wire & Iron Works Co., London, Ont.
STEEL WIRE RODS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STEEL WAGON HARDWARE
*McKinnon Industries, Ltd., St. Catharines, Ont.
STELLITE
*Deloro Smelting & Refining Co., Ltd., Deloro and Toronto.
STENCILS, brass
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
STEPS, for buggies and carriages
*McKinnon Industries, Ltd., St. Catharines, Ont.
STEREO TISSUE AND BLOTTINGS
*Beveridge Paper Co., Ltd., Montreal.
STEREOTYPING
Central Press Agency, Toronto.
STOKERS
*The Jones Underfeed Stoker Co., Ltd., Toronto, Ont.
STOOLS AND BENCHES, piano and organ
*Otterville Mfg. Co., Ltd., Otterville, Ont.
STOOLS, steel factory
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
STONE
The Hagersville Contracting Co., Hagersville, Ont.
STONEWARE
*Jas. W. Foley & Co., St. John, N.B.
STORAGE BATTERIES
*Canadian General Electric Co., Ltd., Toronto, Ont.
*Northern Electric Company, Limited, Montreal, Que.
STORE FITTINGS
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.

STOVES
Smith Foundry Co., Ltd., Fredericton, N.B.
Tudhope - Anderson Co., Ltd., Orillia, Ont.
STOVE LININGS
Standard Clay Products, Ltd., St. John's Que.
STOVE POLISH GRAPHITE
Black Donald Graphite Company, Limited, Calabogie, Ont.
STOVES AND RANGES
Lee Mfg. Co., Ltd., Pembroke, Ont.
The Jas. Smart Mfg. Co., Ltd., Brockville, Ont.
McClary Mfg. Co., London, Ont.
STRAWS, paper drinking
Fletcher Mfg. Co., Ltd., Toronto.
STRAWBOARD
*Canada Boxboard Co., Ltd., Montreal, Que.
STREET LIGHTING FIXTURES
*Crouse-Hinds Co., Ltd., Toronto.
STRETCHERS, lace curtain
*Otterville Mfg. Co., Ltd., Otterville, Ont.
STRUCTURAL STEEL
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.
*Dominion Bridge Co., Montreal.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*Manitoba Bridge & Iron Works, Ltd., Winnipeg, Man.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
STUMP EXTRACTORS
*The John Whitfield Co., Toronto.
SUIT CASES
J. Eveleigh & Co., Ltd., Montreal.
The M. Langmuir Mfg. Co. of Toronto. Ltd., Toronto, Ont.
SULPHUR BURNERS
*The Hydraulic Machinery Co., Limited, Montreal.
SUPPLY DEALERS
*The Foundation Co., Ltd., Montreal. Que.
SURFACERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
SWITCHBOARDS
*Canadian General Electric Co., Ltd., Toronto, Ont.
*Crouse-Hinds Co., Ltd., Toronto.
SWITCHES
*Crouse-Hinds Co., Ltd., Toronto.
SWITCHES, railway
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
SWITCHES AND FROGS
*Canadian Steel Foundries, Ltd., Montreal, Que.
SWITCH STANDS
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
TABLE COVERS, chenille
Hamilton Cotton Co., Hamilton, Ont.
TANKS
Canadian Des Moines Steel Co., Limited, Chatham.
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*Toronto Iron Works, Ltd., Toronto.
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
Goold - Shapley - Muir Co., Ltd., Brantford, Ont.
*E. Leonard & Sons, Ltd., London, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Maritime Bridge Co., Ltd., New Glasgow, N.S.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
Wm. H. White, Ville St. Pierre, Montreal, Que.
TANKS, elevated steel
Canadian Des Moines Steel Co., Limited, Chatham.
TANKS, steel storage
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
TANNERS' SUPPLIES
McClary Mfg. Co., London, Ont.

TAPS
*Butterfield & Co., Rock Island, P.Q.
*Pratt & Whitney Co., Dundas, Ont.
TAPES, measuring
The Lufkin Rule Co. of Canada, Ltd., Windsor, Ont.
TELEPHONE ACCESSORIES
*Canadian Independent Telephone Co., Toronto, Ont.
*Northern Electric Co., Ltd., Montreal, Que.
TENTS
Turner, J. J., & Sons, Peterboro, Ont.
*Scythes & Co., Ltd., Toronto, Ont.
TERMINALS, electric cable
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
TERRA ALBA
*Albert Mfg. Co., Hillsborough, N.B.
TERRA COTTA, architectural
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
TEXTILE SUPPLIES (shuttles, bobbins, spools and picker sticks)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.
THUMB SCREWS
*Canadian Billings & Spencer, Ltd., Welland Ont.
TIE TAMPERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
TIE PLATES, for railways
*McKinnon Industries, Ltd., St. Catharines, Ont.
TILING, rubber
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber Ltd., Toronto, Ont.
TIME RECORDERS
*International Business Machines Co., Ltd., Toronto, Ont.
TINWARE, lithographed
*MacDonald Mfg. Co., Ltd., Toronto. Ont.
TIRES, bicycle, auto, carriage, truck, motorcycle.
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.
*Gutta Percha & Rubber Ltd., Toronto, Ont.
TOILET PAPER, towels, tissues
*Beveridge Paper Co., Ltd., Montreal.
TOOLS
*The John Whitfield Co., Toronto.
TOOLS, pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
TOOLS, track
B. J. Coghlin Co., Ltd., Hamilton.
TOOLS, sheet metal workers'
Brown, Boggs Co., Ltd., Hamilton.
TRACK, steel, portable
Hammant Steel Car & Engineering Works, Hamilton, Ont.
TRADE MARKS AND DESIGNS
Ridout & Maybee, Toronto, Ont.
TRANSFORMERS
*Canadian General Electric Co., Ltd., Toronto, Ont.
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
TRANSLATIONS INTO FRENCH
Raoul Renault, Quebec City.
TRANSMISSION MACHINERY
Bond Engineering Co., Toronto.
*Canadian Link Belt Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
TRAPS
*C. A. Dunham Co., Ltd., Toronto.
*Canadian Morehead Mfg. Co., Woodstock, Ont.
TROLLEYS
*Richard-Wilcox Canadian Co., Ltd., London, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
TRUCKS
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
The Gurney Scale Co., Hamilton.
*Northern Crane Works, Ltd., Walkerville, Ont.
TRUCKS, brick, tile and lumber
*Waterous Engine Works Co., Ltd., Brantford, Ont.
TRUCKS, motor
*National Steel Car Co., Ltd., Hamilton, Ont.
TRUCKS, warehouse and factory
The W. S. Mahaffy Co., Toronto.
TRUCKS, steel, forge and foundry
Hammant Steel Car & Engineering Works, Hamilton, Ont.

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TRUCKS FOR OFFICE AND VAULT USE
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

TRUNKS
Lamontagne, Ltd., Montreal, Que.
J. Eveleigh & Co., Ltd., Montreal.
The M. Langmuir Mfg. Co. of Toronto, Ltd., Toronto.

TUBING, brass and copper
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
Canadian Seamless Wire Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Co., Ltd., Montreal, Que.

TUBING, gold and silver
Canadian Seamless Wire Co., Toronto, Ont.

TUBES, ice cream
Fletcher Mfg. Co., Ltd., Toronto.

TUMBLERS, foundry
*Northern Crane Works, Ltd., Walkerville, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

TURBINES, steam
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines.

TURBINE PUMPS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

TURPENTINE
*Brown Corporation, La Tuque, Que.

TWEEDS
Rosamond Woollen Co., Almonte, Ont.

TWINES
*Doon Twines, Ltd., Doon, Ont.
*Shurly & Derrett, Ltd., Toronto.

TWINES, binder
Brantford Cordage Co., Ltd., Brantford, Ont.

TWINES, cotton
Hamilton Cotton Co., Hamilton, Ont.

TWIST DRILLS
*John Morrow Screw & Nut Co., Ltd., Ingersoll.
*Pratt & Whitney Co. of Canada, Dundas, Ont.
*The Wilt Twist Drill Co., Ltd., Walkerville, Ont.

UNDERWEAR
Galt Knitting Co., Ltd., Galt, Ont.

UNDERWEAR, imperial
Kingston Hosiery Co., Ltd., Kingston, Ont.

UNIONS
*Dart Union Co., Ltd., Toronto.
*Otterville Mfg. Co., Ltd., Otterville, Ont.

UPHOLSTERED FURNITURE, leather and tapestries
Imperial Rattan Co., Ltd.

VALVES
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Jenkins Bros., Ltd., Montreal, Que.
*Kerr Engine Co., Ltd., Walkerville, Ont.
T. McAvity & Sons, Ltd., St. John, N.B.
*Penberthy Injector Co., Ltd., Windsor, Ont.

VALVES, for steam and water
*Jenkins Bros., Ltd., Montreal.
*Mueller Mfg. Co., Ltd., Sarnia, Ont.
*Penberthy Injector Co., Ltd., Windsor, Ont.
James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.

VALVES, pressure reducing
*Mueller Mfg. Co., Ltd., Sarnia, Ont.

VALVES, regrinding globe, angle, cross checks, swing checks
*Mueller Mfg. Co., Ltd., Sarnia, Penberthy Injector Co., Ltd., Windsor, Ont.

VALVES, regulating
*Mueller Mfg. Co., Ltd., Sarnia, Ont.

VALVES, rubber
Dunlop Tire & Rubber Goods Co., Ltd., Toronto, Ont.

VARNISHES
*Ault & Wiborg Co. of Canada, Ltd., Toronto, Ont.
Berry Bros., Walkerville, Ont.
R. C. Jamieson & Co., Ltd., Montreal, Que.

VAULT FITTINGS, steel
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

VAULTS AND VAULT DOORS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
J. & J. Taylor, Ltd., Toronto, Ont.

VENTILATING APPLIANCES
*Sheldons, Ltd., Galt, Ont.

VENTILATING SYSTEMS
Gurney Foundry Co., Ltd., Toronto, Ont.

VENTILATORS
*A. B. Ormsby, Ltd., Toronto, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.

VOLTMETERS AND AMMETERS
*Crouse-Hinds Co., Ltd., Toronto.

WAGONS
Tudhope Anderson Co., Ltd., Orillia, Ont.

WAGON HARDWARE
*McKinnon Industries, Ltd., St. Catharines, Ont.

WALL COPING
Standard Clay Products, Ltd., St. John's, Que.

WASHERS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*United Brass & Lead, Ltd., Toronto, Ont.

WASHERS, plate or wrought
London Rolling Mill Co., Ltd., London, Ont.

WASTES, wool and cotton
Factory Waste & Metal Co., Montreal, Que.
*Scythes & Co., Ltd., Toronto, Ont.

WATERPROOF, cement coating
Benjamin Moore & Co., Ltd., Toronto, Ont.
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
*The Barrett Co., Ltd., Toronto and Montreal.
*Trussed Concrete Steel Co. of Canada, Ltd., Walkerville, Ont.

WATERPROOF, caselining
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

WATER PAINTS
Sturgeons Limited, Toronto.

WATER WHEELS
*Canadian Allis-Chalmers, Ltd., Toronto, Ont.

WEBBING, elastic
Hamilton Cotton Co., Hamilton, Ont.

WEBBING, non-elastic
Hamilton Cotton Co., Hamilton, Ont.

WELDING APPARATUS AND MATERIALS
*The Presto-O-Lite Co., Toronto.

WELL-DIGGING TOOLS AND MACHINERY
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.

WHEEL FLANGES
*McKinnon Industries, Ltd., St. Catharines, Ont.

WHEELS
*Canadian Car & Foundry Co., Ltd., Montreal, Que.

WHEELS, corundum
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

WHEELS, emery
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

WELL DRILLING TOOLS AND MACHINERY
Oil Well Supply Co., Ltd., Petrolia, Ont.

WHIPS AND LASHES
Lay Whip Co., Rock Island, Que.

WHIPSOCKETS
*McKinnon Industries, Ltd., St. Catharines, Ont.

WHITE ARSENIC
Coniagas Reduction Co., Ltd., St. Catharines, Ont.

WHITE LEAD
Brandram-Henderson, Ltd., Montreal, Que.
A. Ramsay & Son Co., Montreal.

WINDMILLS
*Goold - Shapley - Muir Co., Ltd., Brantford, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*Medicine Hat Pump & Brass Mfg. Co., Medicine Hat, Alta.

WINDOW SHADES
Daly & Morin, Montreal, Que.

WIRE
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*Laidlaw Bale Tie Co., Ltd., Hamilton, Ont.
*Eugene F. Phillips, Electrical Works, Ltd., Montreal, Que.
The Graham Nail Works, Toronto.

WIRE BALE TIES
*Laidlaw Bale Tie Co., Ltd., Hamilton, Ont.

WIRE CLOTH
*Canada Wire & Iron Goods Co., Hamilton, Ont.
C. H. Johnston & Sons, Ltd., Montreal, Que.

WIRE, feeder and trolley
*Eugene F. Phillips, Electrical Works, Ltd., Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

WIRE GUARDS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*C. H. Johnson & Sons, Limited, Montreal, Que.

WIRE, insulated electric
*Northern Electric Co., Ltd., Montreal, Que.
*Eugene F. Phillips Electrical Works, Ltd., Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

WIRE, weatherproof
*Northern Electric Co., Ltd., Montreal, Que.
*Eugene F. Phillips Electrical Works, Ltd., Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

WIRE ROPE
*Dominion Wire Rope Co., Ltd., Montreal, Que.
*The B. Greening Wire Co., Ltd., Hamilton, Ont.

WIRE WORK
*C. H. Johnson & Sons, Limited, Montreal, Que.
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*The Geo. B. Meadows, Toronto Iron & Brass Goods Works Co., Ltd., Toronto, Ont.

WIRING DEVICES
*Crouse-Hinds Co., Ltd., Toronto.
*Northern Electric Co., Ltd., Montreal, Que.

WOOD
Standard Fuel Co., Toronto, Ont.

WOOD BORERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

WOOD PRESERVATIVES
Sturgeons Limited, Toronto.

WOOD PRINTERS
Barchard & Co., Ltd., Toronto.

WOOD PULP, mechanical
La Cie de Pulpe de Chicoutimi, Chicoutimi, Que.

WOODBOARD
*Canada Boxboard Co., Ltd., Montreal, Que.

WOOD SHOP, general work
*Canadian Rumely Co., Ltd., Toronto, Ont.

WOOD SPLIT PULLEYS
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

WOOD STAVE PIPE
T. A. Morrison & Co., Montreal.

WOOL
*H. V. Andrews, Toronto, Ont.

WOOD TURNING
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.

WORSTED COATINGS AND SUITINGS
Rosamond Woollen Co., Almonte, Ont.

WRAPPERS, book, bottle, etc.
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.

WRENCHES
*McKinnon Industries, Ltd., St. Catharines, Ont.

WROUGHT IRON PIPE
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

WROUGHT PIPE
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

YARNS, cotton
Hamilton Cotton Co., Hamilton, Ont.

ZINC, electrical
*The Canada Metal Co., Toronto.

*For Display Advertisement see Index, Page 43

JULIUS COHEN & JOSEPHY

Foreign *Domestic* WOOL *Noils, Wastes and Shoddy*

Also operating THE YORKSHIRE WOOL STOCK MILLS, ALMONTE, ONT.

Manufacturers of Pulled and Carded Shoddies

H. V. ANDREWS Canadian Representative 13 Church St., Toronto

THE OUTLOOK AT OTTAWA — Page 59

Vol. XX., No. 11 TORONTO, MARCH, 1920 $2.00 per Year

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The manufacturer whose brand is continuously advertised to the consumer will have the best protection against widely advertised foreign brands.

Is your brand being impressed upon the consumer's mind by aggressive advertising ?

We are equipped to help you do this effectively.

J. J. GIBBONS, LIMITED

General Advertising Agents

MONTREAL TORONTO WINNIPEG

Cables—Gibjay, Toronto Codes—ABC, 5th Edition

PUBLISHED BY THE CANADIAN MANUFACTURERS ASSOCIATION INCORPORATED.

HEAD OFFICE TORONTO · BRANCH OFFICES, MONTREAL, HAMILTON, WINNIPEG, VANCOUVER, HALIFAX, QUEBEC

STEEL TANKS

THE
TORONTO IRON WORKS
LIMITED

HEAD OFFICE: ROYAL BANK BLDG. TORONTO WORKS: CHERRY STREET

Oil Storage, Gasoline Tanks, Air Receivers, Pneumatic Water Supply Tanks, Smoke Stacks, Boiler Breeching, Riveted Steel Pipe, Bins and Hoppers. Heavy and light steel plate construction erected anywhere.



QUALITY FIRST

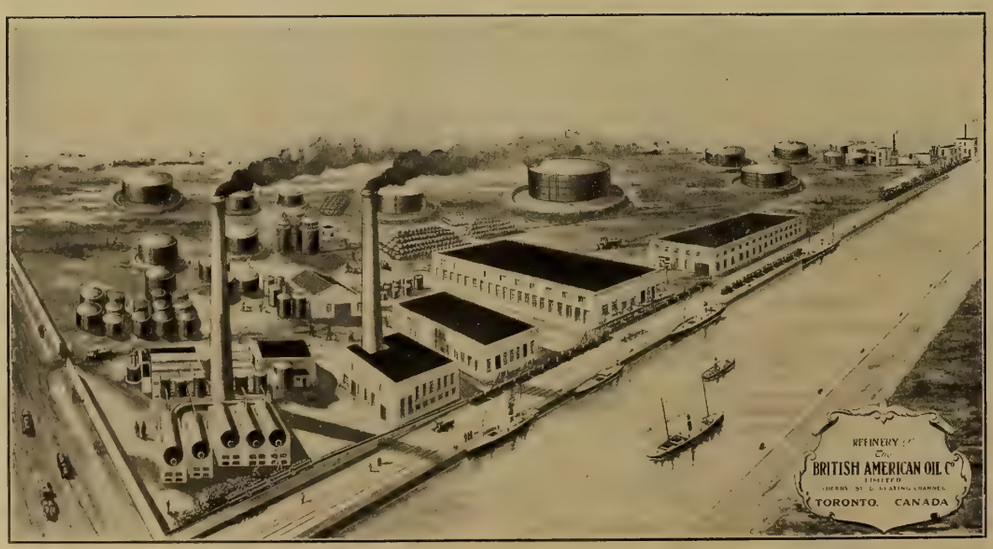
GALT KNIFE CO., LIMITED

GALT - - - ONTARIO

THE BRITISH AMERICAN OIL CO., LIMITED

REFINERS

Gasolene
Benzine
Kerosene
Fuel Oil
Road Oils
Paraffine Wax
Motor and General Lubricating Oils



Branches:
Montreal
Ottawa
London
Windsor
St. Catharines
Oshawa
Hamilton
etc.

Head Office: ROYAL BANK BUILDING, TORONTO

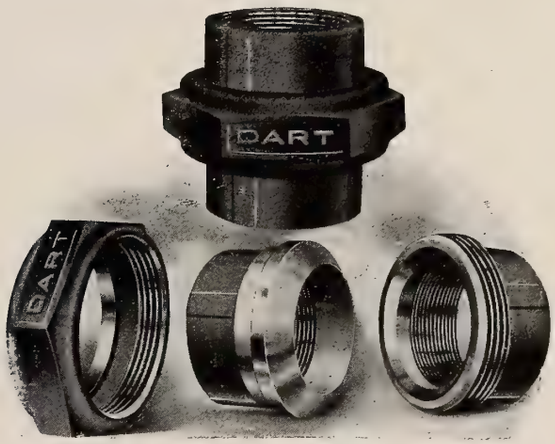


Permanently Tight

No Upkeep Cost
No Replacement Cost
No Loss From Leaks

Your Jobber Sells Them

The Pipe Coupling
THAT NEVER LEAKS
Bronze to Bronze at the Joint



True Economy---

Your Jobber Sells Them Manufactured by DART UNION CO., LIMITED, Niagara Street, Toronto

CHARLES F. DAWSON, LIMITED

Wholesale and Manufacturing Stationers

MONTREAL

Bookbinding Printing Ruling
Embossing Engraving Lithographing

Manufacturers in every branch of the industry
Carry a large stock of every office requisite

WE OFFER

Accurate, intelligent attention — Cumulative experience of ninety years
Prompt careful deliveries — Fair prices — Satisfaction

On account of the service offered, we number among our friends most of the Governments, Federal and Provincial—Municipalities, Banks, Transportation Companies, Corporations, Professional Firms, Colleges, Schools, etc.

If you have not already done so—why not open a ledger account with us. You will be surprised at the change.

P.S.—Catalogues and advertising literature yours for the asking.

Index to Advertisements. . . . .Page 45 Contents. . . . .Page 47

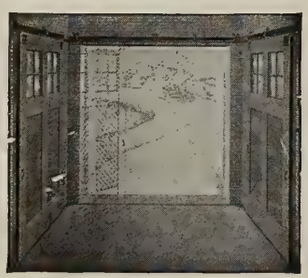


BULLDOG STEEL JOIST HANGERS

They never let go! Stronger than malleable. All sizes and styles for all kinds of work. Save space and time in erection.

GARAGE DOOR HARDWARE OF ALL KINDS FOR ANY PURPOSE

Angle Doors, Parallel Doors, etc. Special jobs receive the prompt attention of our engineering department. Let us know your requirements.





Put Your Trucks on The Ceiling!

The Modern Method of Factory Transportation

A Richards-Wilcox Carrier System---either I-Beam or Trolley---will pay for itself in one year on actual pay-roll saving, not to mention the increased efficiency. Occupies no floor space. Always ready for use. Operates easily, one man can handle 2,500 lbs. Trolley carriers made in sixteen styles and sizes for loads up to 2,500 lbs. For heavier loads use I-Beam Equipment.

Catalogs Upon Request

Richards-Wilcox Canadian Co. Ltd.

AURORA BOSTON NEW YORK CHICAGO London Ontario PHILADELPHIA MINNEAPOLIS SAN.FRANCISCO ST.LOUIS

"A hanger for any door that slides"



"R-W" TROLLEYS ARE BEST FOR ALL SLIDING DOORS

Specified by leading architects and engineers throughout Canada and the United States. "A hanger for any door that slides."

FIRE DOORS AND FIRE DOOR HARDWARE WITH UNDERWRITERS' LABEL

All styles, single or double, sliding or swinging. A fire door with labeled hardware is the surest way to prevent fire from spreading.



SHOW YOUR SAMPLES UNWRINKLED

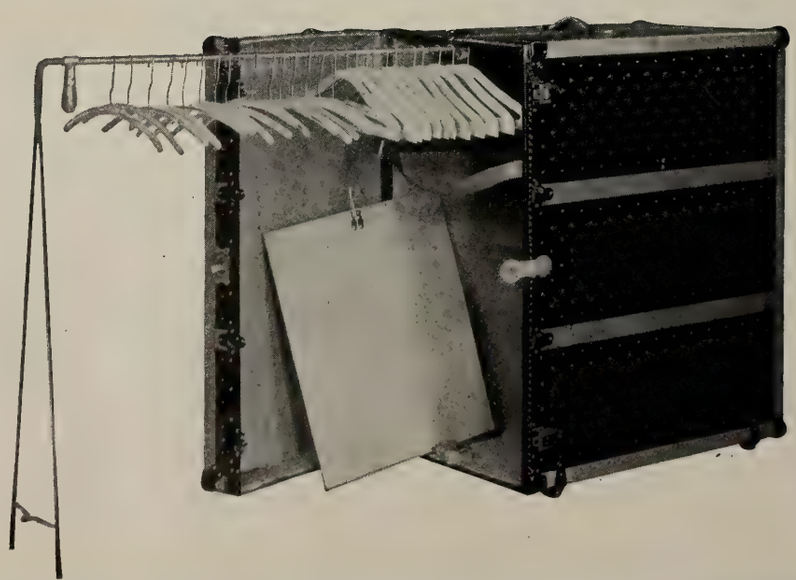
WARDROBE TRUNKS

for Suits, Coats, Dresses and Waists

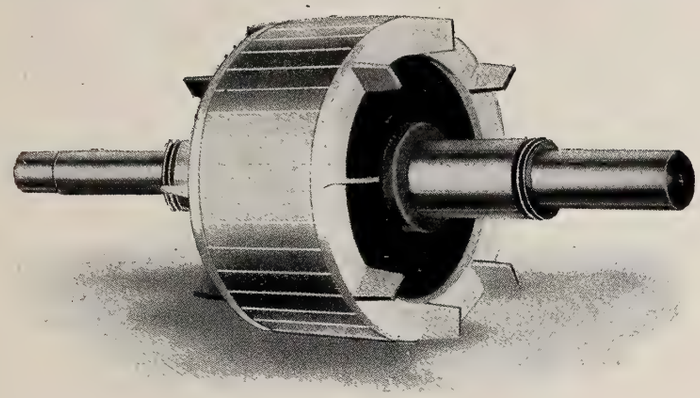
WE MAKE SAMPLE TRUNKS AND CASES FOR EVERY BUSINESS

Let us know your needs and get our prices.

The M. Langmuir Mfg. Co. of Toronto
Limited



Exclusive—New—Efficient!



Canadian Crocker-Wheeler Cast Winding Squirrel Cage Rotor
Smaller Motor Type

YOU CAN'T KEEP UP PRODUCTION WITH OLD STYLE, SPUTTERING, WASTEFUL MOTORS, ALWAYS PINING FOR THE REPAIR SHOP. OUR NEW CAST WINDING ROTOR CONSTRUCTION IS SOMETHING THAT WILL MAKE YOUR ELECTRICAL FRIEND OPEN WIDE HIS EYES. LET US SEND YOU A DESCRIPTIVE FOLDER TO SHOW TO HIM

Canadian Crocker-Wheeler Apparatus and Service are available at all of the N. E. Co. Branches as follows:
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Winnipeg Regina Calgary Vancouver

Northern Electric Company
LIMITED

THE CANADIAN
CROCKER-WHEELER COMPANY
LIMITED
Manufacturers and Electrical Engineers

Head Office and Works:
ST. CATHARINES, ONT.

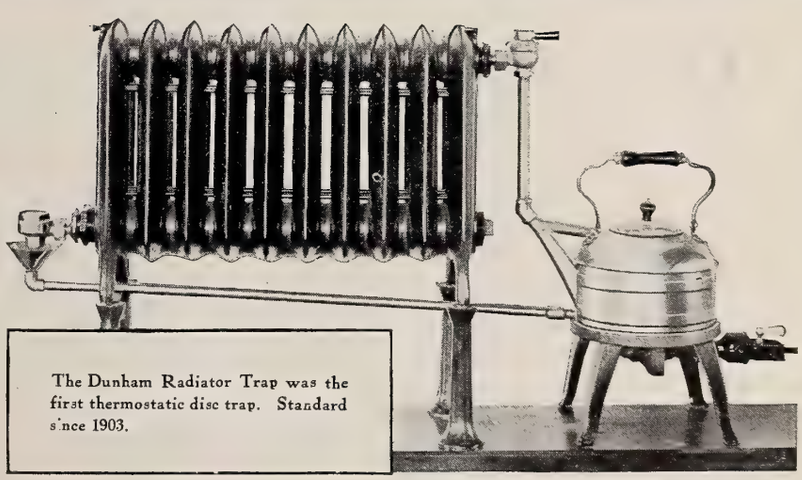
District Offices:
TORONTO and MONTREAL

Heating a Radiator With a Tea Kettle

It was done at the Ottawa Technical Schoo before a group of engineers who were amazed at the demonstration. It proved beyond question that low pressure steam will quickly heat a radiator to 100% efficiency if the trap is right. It indisputably proved that the Dunham Radiator Trap functions perfectly.

Since 1903, the Dunham Radiator Trap has been eliminating any chance of trap trouble in thousands of installations. It was the first thermostatic disc trap. Think of this when you think of traps, and remember that the Dunham Trap is only one element in Dunham Heating Service. The entire service offers much to the man who plans, sells, and installs the heating system—and more to him who pays the bills.

If you welcome suggestions that do not obligate you, get in touch with our nearest office. For authoritative information, write for booklet, "Data on Dunham Heating."

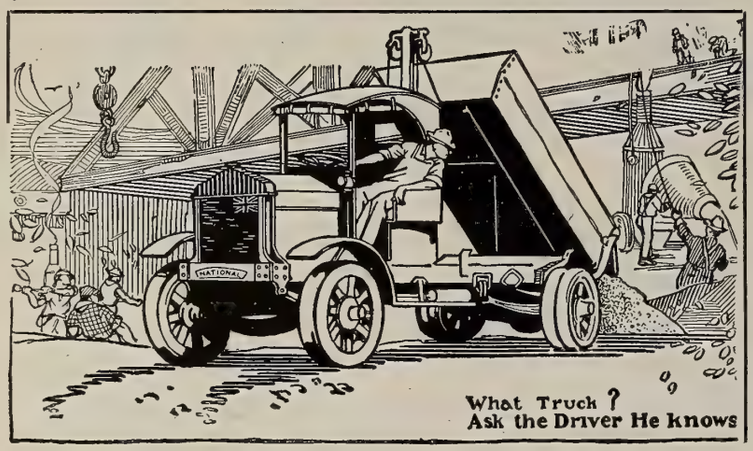


The Dunham Radiator Trap was the first thermostatic disc trap. Standard since 1903.

The DUNHAM HEATING SERVICE

C. A. DUNHAM COMPANY, Limited
TORONTO ONTARIO

Halifax Ottawa Vancouver Montreal Winnipeg Calgary
London: 64 Regent House
Regent Street, W. 1



NATIONAL MOTOR TRUCKS

Power, Endurance Strength

National Motor Trucks give greatest service at lowest operating and maintenance cost.

Everyday performance proves it. The National unfailingly guards against transportation delay. Continuous and economical operation is due to National construction. The National is the choice of transportation engineers, exacting city councils, and traffic managers of Canada's largest manufacturers. Let their choice guide you to motor truck economy.

Built in Canada and built to carry capacity loads over level roads or rough stretches, and negotiate steep grades with speed, ease and safety.

INVESTIGATE THE NATIONAL TODAY ARRANGE FOR A DEMONSTRATION

National Steel Car Corporation Limited, Hamilton, Canada

Nova Scotia Steel & Coal Co. LIMITED

PLATES

1/8 to 5/8" thick up to 48" wide, weighing up to 1060 lbs. each

Fluid Compressed Steel Forgings

We manufacture Merchant Bars, Rounds, Flats, Squares, Ovals, Half Ovals, Tires, Sleigh Shoes, Plain or Twisted Concrete Bars, Agricultural Sections, Cold Drawn Shafting, Machinery Steel, Angle Bar Fish Plates, Track Spikes and Bolts.

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WINDSOR HOTEL, MONTREAL

Head Office:
NEW GLASGOW, N.S.

The BERTRAM Page

MACHINE TOOLS

No. 8 Double Angle Shear
on plain base

Capacity—8″ x 8 x 1¼″ angles.

Motor drive—15 H.P. Motor.

The John Bertram & Sons Co., Limited
DUNDAS. ONTARIO.

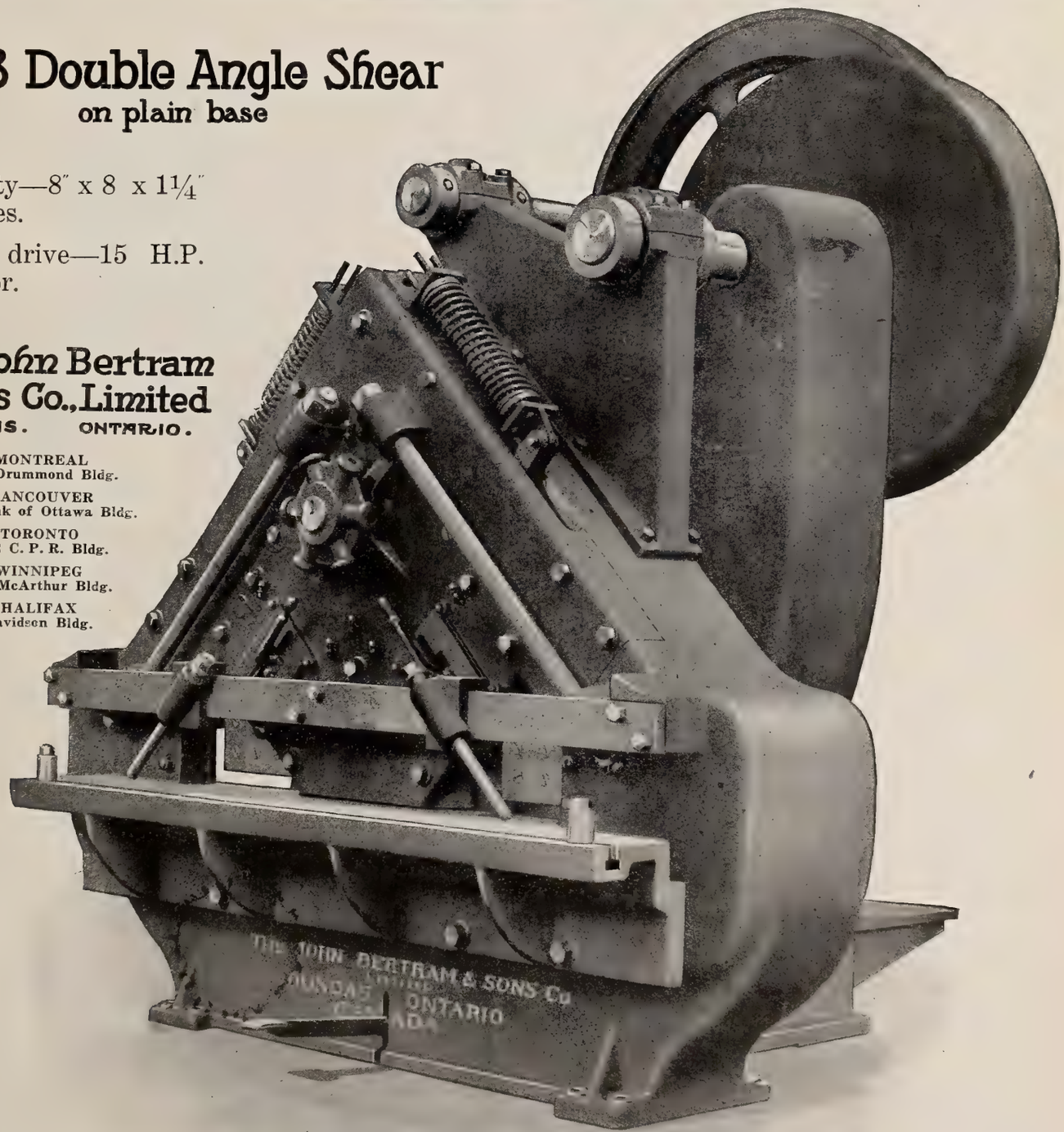
MONTREAL
723 Drummond Bldg.

VANCOUVER
609 Bank of Ottawa Bldg.

TORONTO
1002 C. P. R. Bldg.

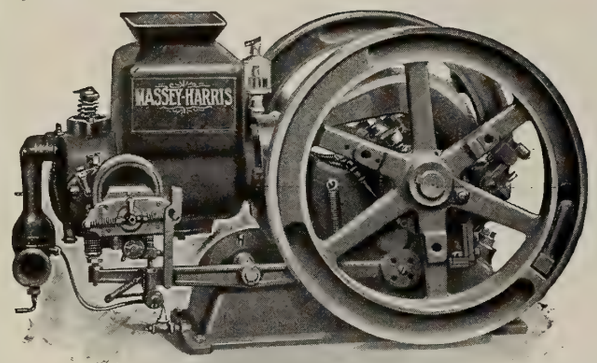
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205 McArthur Bldg.

HALIFAX
Davidson Bldg.



P13201

Massey-Harris



An Engine You Can Depend On

The Massey-Harris Engine can be depended on to give all the year 'round service in any kind of weather at minimum cost, because it's designed on scientific principles and every part built to stand up and wear long.

Think what these features mean:

Simple in operation.

A Simple and Efficient Carburetor gives a perfect mixture in any kind of weather.

Effective Governor—No charge or spark on Idle Stroke.

Valves Easily Removable.

Large Water Space surrounding Cylinder.

Safe Gasoline Storage in the substantial Cast-Iron Base.

Write for more detailed description of the Massey-Harris Gasoline Engine.

Made in Sizes to deliver from 2 to 15 H.P.

MASSEY-HARRIS CO., Limited

Head Office—Toronto, Canada

Canadian Branches at

Montreal Moncton Winnipeg Regina Saskatoon
Swift Current Yorkton Calgary Edmonton

AGENCIES EVERYWHERE

CUT GEARS

Gears with Generated Teeth



Accurate, durable gears always pay in the long run.

WRITE FOR QUOTATIONS

Hamilton Gear Co. Ltd.

Van Horne St. - TORONTO

Efficient Transfer Cases

Do you ever send your stenographer or secretary to find some last year's correspondence and have her, in turn, get the office boy and wade through the old type of filing case? Perhaps they have to lift down several cases to get at the right one—and in the meantime you wait. With the

MEADOWS STEEL TRANSFER CASE

you have no such trouble, no waits. Your last year's correspondence is ***just as accessible as your daily mail of this season.***



There is only the first cost. Meadows Steel Transfer Cases will not wear out or break under every day working conditions. They will stand an unusual amount of rough handling. Best of all they are the efficient case—dustproof, fireproof.

You can buy one Meadows Transfer Case and add more as you need them. They interlock, one above the other, to any height desired. They are sturdily built, are free running and take up little floor space.

VERY COMPACT

The frame is constructed of flat steel bars, welded to withstand any unusual strain. Note the measurements and compare with other makes.

INTERLOCK WITHOUT BOLTS

Meadows Steel Transfer Cases interlock without the use of bolts. A notch in the back leg of each case hooks into the one below and prevents the case from tipping when the drawer is pulled out. This gives a rigid construction to the stack.

LARGE SPACE FOR FILING

Each drawer has 26 inches of filing space—the most clear filing space of any case on the market. This point is well worth considering.

SPECIFICATIONS

Letter size, 12″ wide, $10\frac{3}{4}$″ high and 26″ deep. Outside measurements, $12\frac{3}{4}$″ wide, $12\frac{1}{16}$″ high and $26\frac{1}{4}$″ deep. A stack of four crated for shipment weighs 125 lbs.
Prices will be sent on receipt of information as to the quantity you can use.

THE GEO. B. MEADOWS
TORONTO WIRE, IRON & BRASS WORKS CO
LIMITED
TORONTO ——— CANADA



Salt Plant Windsor, Ont.

UNSURPASSED

Don't risk. Use salt and chemical products which are unquestionably the best.

Windsor Salt
Regal Salt
Caustic Soda
Chloride of Lime
and
Bleaching Powder

are made in the most modern plant in Canada under conditions which insure such a standard of perfection that it puts them in a class by themselves.

Buy Made-in-Canada Products

THE CANADIAN SALT CO., LIMITED
WINDSOR, ONTARIO



Chemical Plant Sandwich, Ont.

Wire Cloth

of every description



We make Wire Rope and Perforated Metals for all purposes.
Machinery Guards of all kinds.
Metal Lockers for Clothes
Drop a line for full details.

CANADA WIRE & IRON GOODS CO.
HAMILTON ONTARIO
Eastern Representative:
H. O. Bull, 184 Mance St.
Montreal, P.Q.

The Master Metal

STELLITE

Not Steel—But its Master

A tool whose production is limited by the capacity of your lathe.

Gets harder and tougher the hotter it becomes up to 1800° F.

Why put in more machinery when your production can be increased without increasing your overhead expenses.

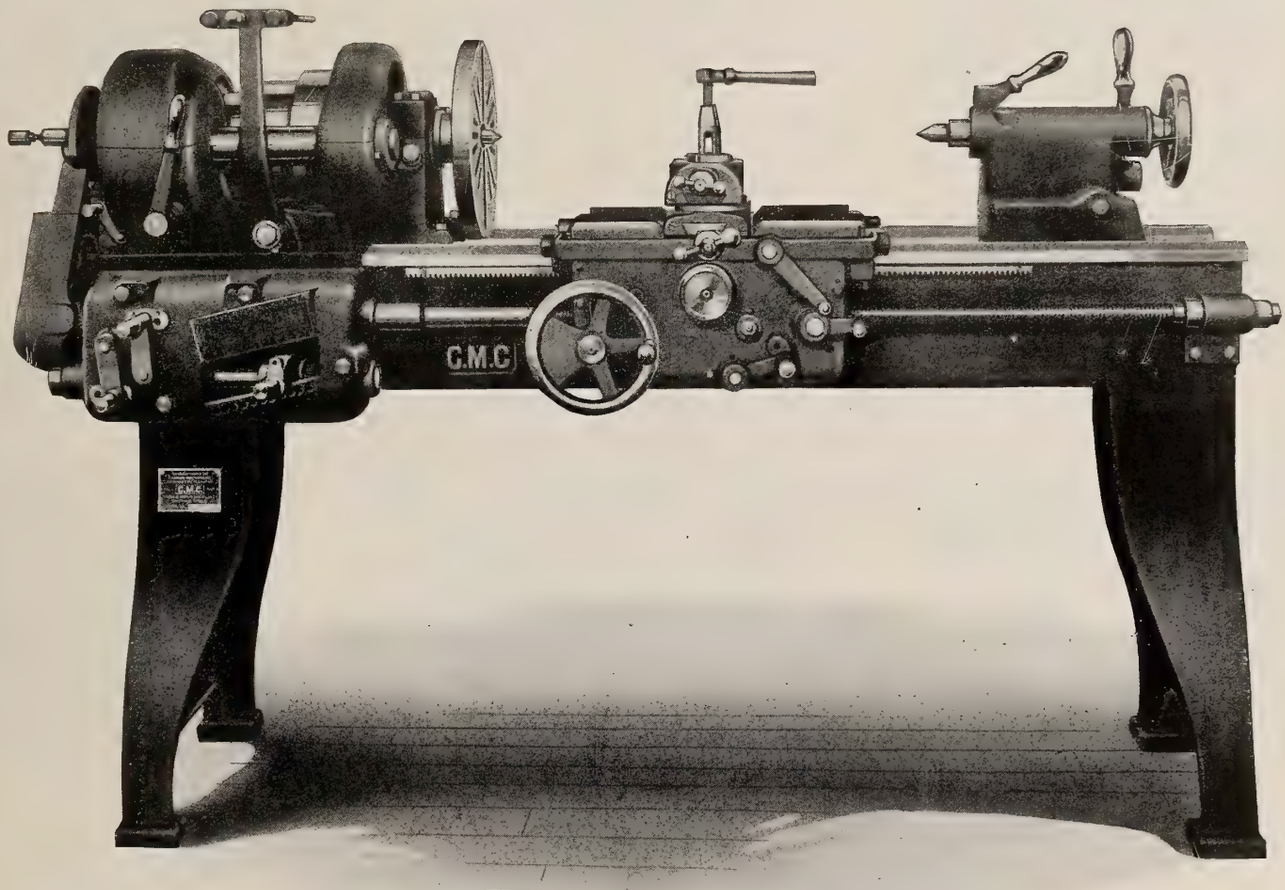
Before deciding on that new lathe allow us to demonstrate what can be done with Stellite.

Deloro Smelting & Refining
Company, Limited

Head Office and Works
DELORO - - CANADA

Branch Warehouses
200 King St. West, Toronto, Canada
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26 Albermarle St., London, England

MACHINE C.M.C. TOOLS



14" x 6' QUICK CHANGE, D. B. G. ENGINE LATHE

WE can now offer for prompt shipment the only high grade Tool Room Lathe made in Canada. Our 14 inch Tool Room Lathe is the last word in lathe design embodying the latest improvements and above all extreme accuracy.

Special bulletins giving full details on request

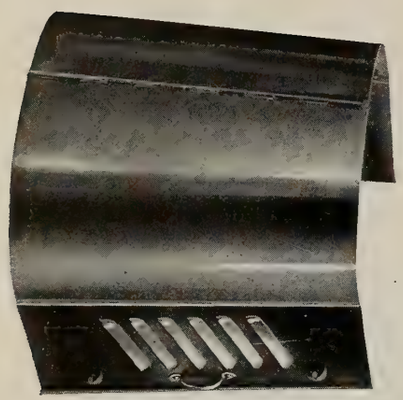
CANADA MACHINERY CORPORATION
LIMITED

Toronto Office and Warerooms
Brock Avenue Subway

GALT, ONTARIO

TRY THE **PEDLAR** PEOPLE LIMITED
OSHAWA, ONT.

For Everything in
STEEL STAMPINGS



NEARLY 60 years of specialized experience and a plant that has few equals on the continent for equipment, assure you exceptionally good service when you place your order with us for Steel Stampings and deep-drawn work. We can handle Stampings of every size and are particularly well-known for automobile body stampings and tank work of all descriptions.

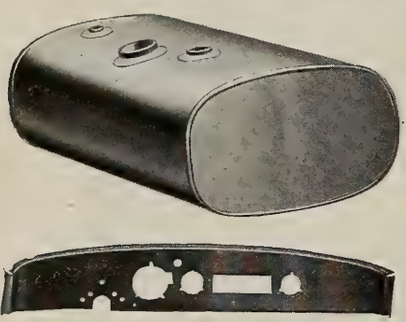
Are you using castings or forgings when perhaps a stamping would not only be more economical but would serve better?

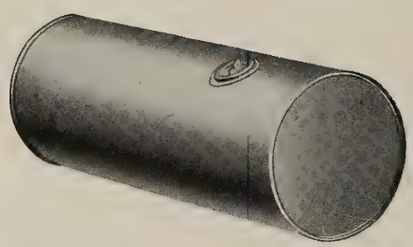
Our engineering department is at your service to help you determine where you can replace forgings or castings with steel stampings.

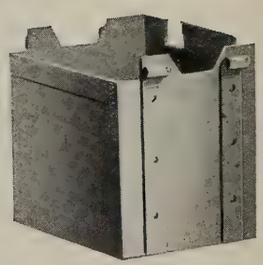
WE INVITE YOUR ENQUIRY

THE PEDLAR PEOPLE LIMITED
(Established 1861)

Executive Offices and Factories: OSHAWA, ONT.
Branches: Montreal, Quebec, Halifax, St. John, Ottawa, Toronto, Winnipeg, Vancouver







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Bedsteads, Furniture, Hardware, Dry Goods, Rubbers, Overshoes, and other Footwear, Blankets, Sheets, Pillows, Baskets, Woodenware, Brushes, etc.

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The Stores are located at various places throughout Canada

Instead of or in addition to sales by sealed tender

PRICE LISTS WILL NOW BE ISSUED

for most articles—the goods being offered in lots for purchase by wholesale houses, jobbers, and the trade generally.

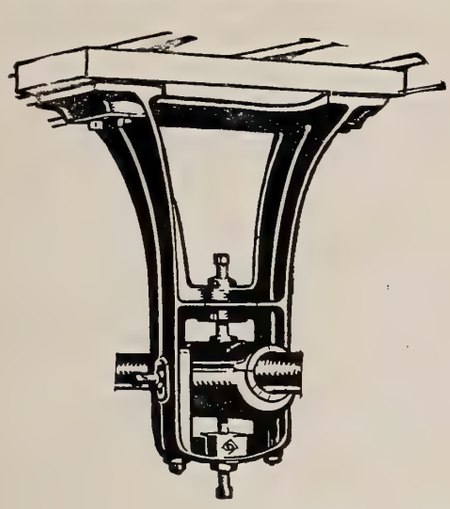
TRADE ONLY SUPPLIED

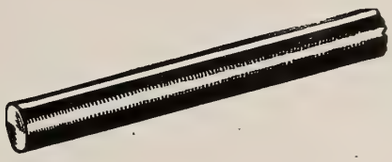
except that arrangements previously announced for sale to returned soldiers and sailors and widows and dependents of same through the G. W. V. A. and similar organizations and to hospitals and philanthropic institutions will be continued.

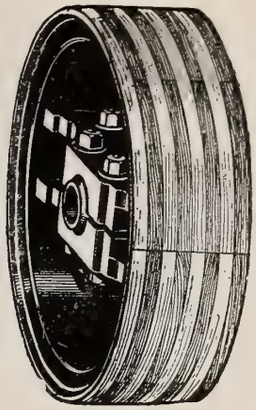
SALES WILL CEASE IN MARCH. Any balances left will be cleared by public auction shortly thereafter. This advertisement will not be repeated. Those interested should therefore apply AT ONCE for price lists and other information to the

SECRETARY OF THE WAR PURCHASING COMMISSION, BOOTH BUILDING, OTTAWA

February, 1920







56 Distributors for

DODGE

Shafting Hangers Pulleys

Every considerable town has a stocker carrying a reasonable quantity of Dodge Shafting, Hangers and Pulleys.

Our factory men continuously call upon these stockers to see that stocks are kept up.

Stockers' standing instructions are that orders that cannot be filled immediately from stock must be wired to the Toronto or Montreal warehouse for shipment that same day.

We rarely fall down. As a result this very simple organization has built up a sound reputation for deliveries.

When a firm wants Transmission equipment they are usually in a mighty big hurry for it---in fact would have liked to have had it yesterday.

Therefore, we tell stockers that the one sure way to hold the good will of customers is to do the next best thing---ship the order to-day.

We advertise continuously where we have stockers so that local buyers may know who these men or firms are.

We tell you this because we want you to know the way we work so that you can call upon us with assurance when the time comes.

DODGE

MANUFACTURING CO., LIMITED

TORONTO = = = ONTARIO

Also 770 St. Paul Street West, Haymarket Square, Montreal, Que.

CANADA'S LARGEST BUILDERS OF TRANSMISSION MACHINERY

Dominion Copper Products Company, Limited

Manufacturers of

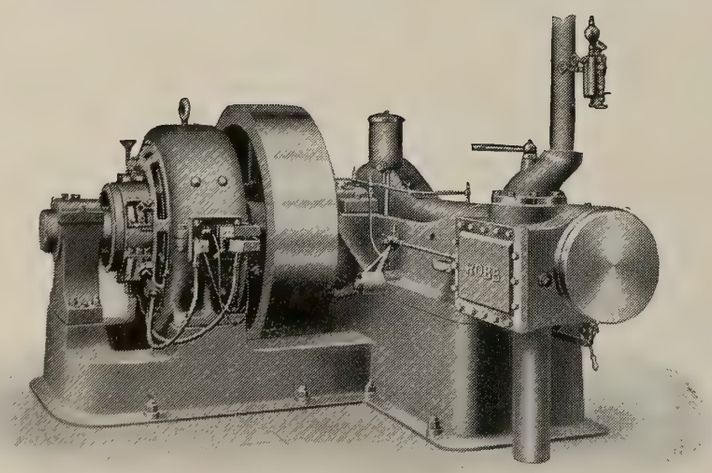
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Corliss, slide valve, vertical, horizontal, simple and compound.

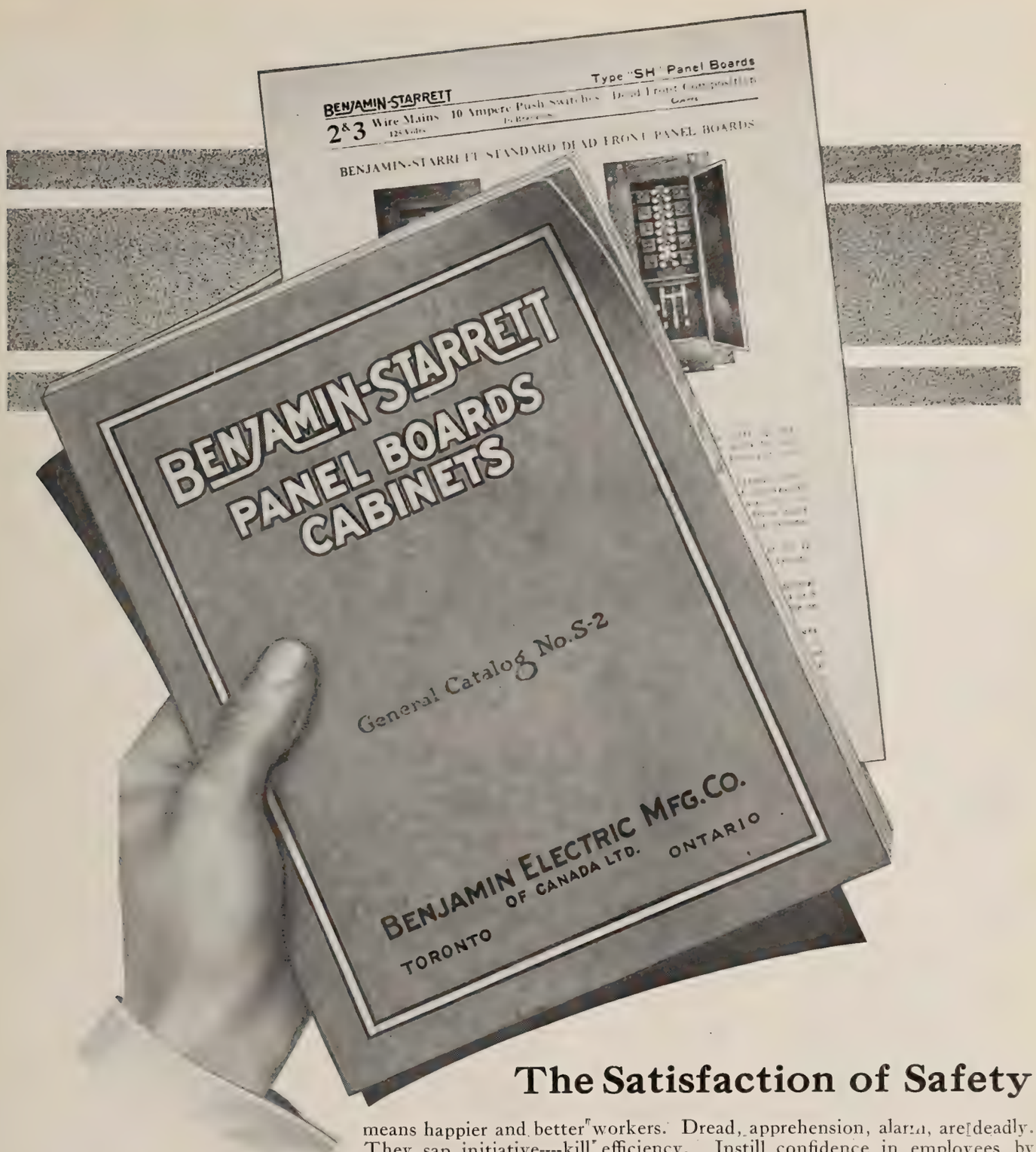
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Water tube, return tubular, improved Scotch marine and portable.

Robb Engineering Works, Limited, Amherst, N.S.

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20 Victoria Street



The Satisfaction of Safety

means happier and better workers. Dread, apprehension, alarm, are deadly. They sap initiative----kill efficiency. Instill confidence in employees by guarding them; first, because it is a humane thing; second, because it pays. Let us explain the direct application of Benjamin Products to you.

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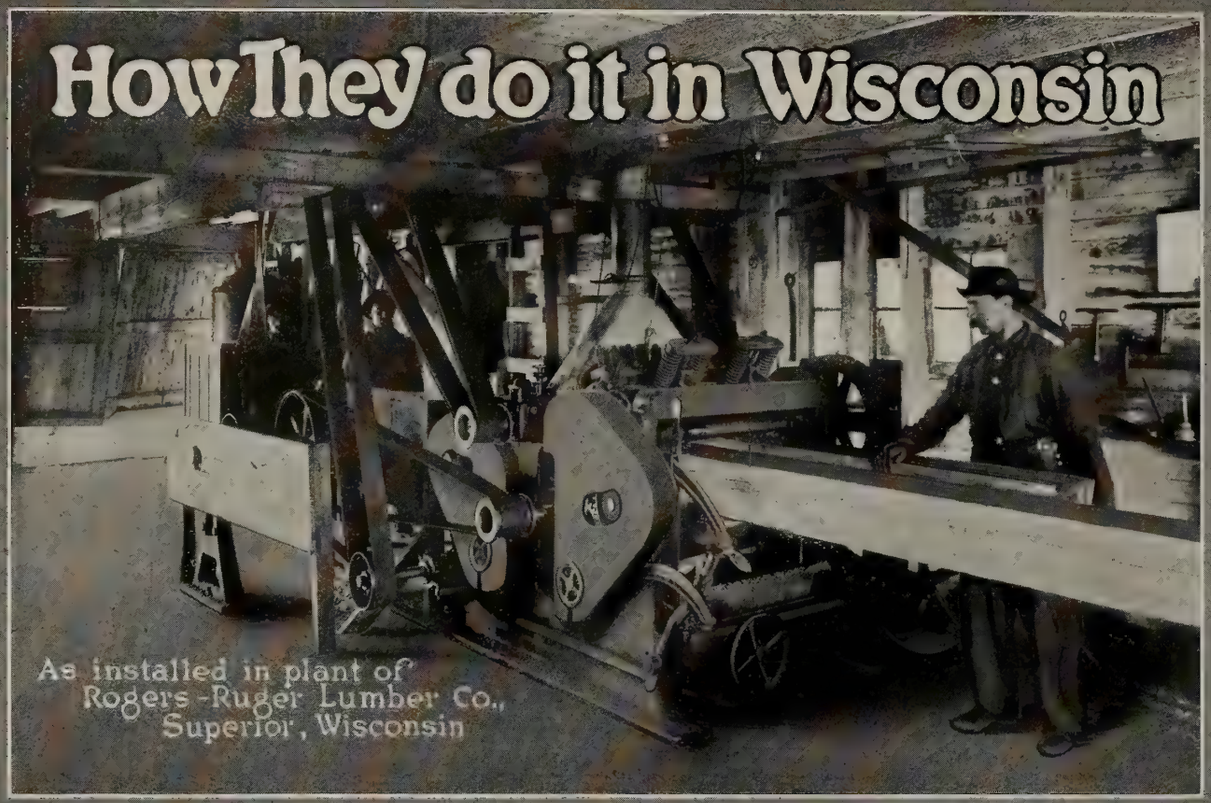
Benjamin Electric Mfg. Co. of Canada Limited

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Two-Way Plugs
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Electrical Specialties
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Panel Boards and Cabinets
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How They do it in Wisconsin



As installed in plant of
Rogers-Ruger Lumber Co.,
Superior, Wisconsin

The Yates No. 177 Double Surfacer

Yates

"The Invariable Choice of The Man Who Knows"

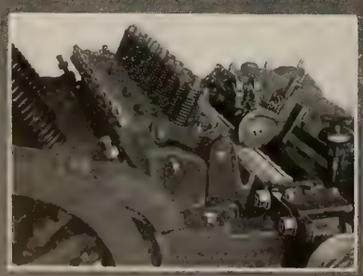
is used extensively by Wisconsin manufacturers in making many well-known wood products, as it is in many of the leading establishments throughout the world.

The reason for its popularity is that the No. 177 always makes good.

This machine is sturdily constructed for long service and will handle stock from capacity down to a fraction of an inch in thickness with economy and dispatch. Equipped with round heads and Yates improved grinding and jointing devices, the No. 177 will give fine finish at the fastest rates of feed.

Our free, illustrated circular gives detailed information regarding its many features. This will be sent to you on request.

Section showing sturdy construction and improved knife grinding device



P. B. Yates Machine Co., Ltd.
HAMILTON, ONT., CANADA
U. S. PLANT—BELOIT, WIS.



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Is it any quality for a price?
Is it known efficiency in your power transmission?
Is it on the recommendation of someone else?
Is it on sentiment?
Or is it on a thorough knowledge of what it will accomplish?

A poor belt will cost you more in lost power, lost time, lost efficiency, than the price of a good belt—therefore you should eliminate the element of guess by specifying the correct type and size of

Dominion Friction Surface Belting

But unless you are thoroughly acquainted with belting requirements—the thickness and width to carry a given load, and other such technical subjects—you should profit by our experience, which may be had for the asking.

A phone, wire or letter to our nearest service branch will bring to your plant, at your convenience, and without cost, one of our belting engineers, who will analyze your transmission requirements and specify a belt that will efficiently and satisfactorily meet your needs.

Send that request to-day.

CANADIAN CONSOLIDATED RUBBER CO. LIMITED
DOMINION RUBBER SYSTEM
AND ASSOCIATED COMPANIES

Our Dominion Hose, Packing and Industrial Rubber Goods are all the Same High Standard as Dominion Friction Surface Belting.

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74



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Cutting ⅜ inch Sheet Steel Piling (including lock joints 2¼ inches thick) by the Prest-O-Lite Process



One Man Does the Work of Two in Less Time — at Less Cost!

THIS illustration shows one man, with a Prest-O-Lite blow pipe, cutting ⅜ inch sheet steel piling, used in the construction of the protection piers of a large drawbridge. This one man handled the entire job, cutting an average of seven feet of piling per hour—an enormous saving over the old slow and costly method of sawing, which required the services of two men.

Prest-O-Lite PROCESS

offers splendid opportunities for substantial savings in manufacturing, construction and repair work.

Prest-O-Lite Oxy-Acetylene welding and cutting is opening the way to construction and repair operations which cannot be performed by any other process.

Employs both gases (acetylene and oxygen) in portable cylinders. Prest-O-Lite Dissolved Acetylene is backed by Prest-O-Lite Service which insures prompt exchange of full cylinders for empty ones. Provides dry, purified gas, insuring better welds, quicker work and lower operating cost.

Thorough instructions are furnished free to every user of Prest-O-Lite Dissolved Acetylene. Any average workman who understands metals can learn the process quickly and easily. There is practically no line of metal manufacturing or repairing in which oxy-acetylene welding has not already established itself firmly as standard routine method.

Write for valuable illustrated literature and data on work others are doing by Prest-O-Lite welding process. It may point out ways to solve your problems.



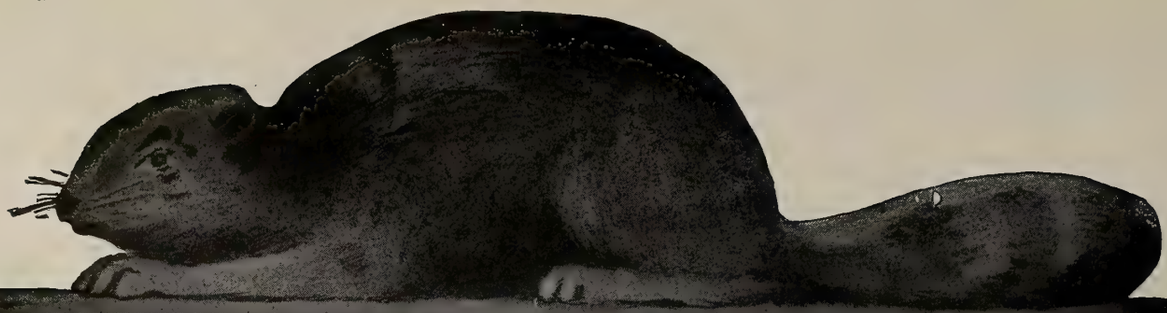
Address Dept. C-104

Prest-O-Lite Company of Canada
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Prest-O-Lite Building, Corner Elm Street and Centre Avenue

TORONTO

Plants: Toronto, Ont. Merritton, Ont. St. Boniface, Man. Shawinigan Falls, P.Q.



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of All Kinds for Any Service

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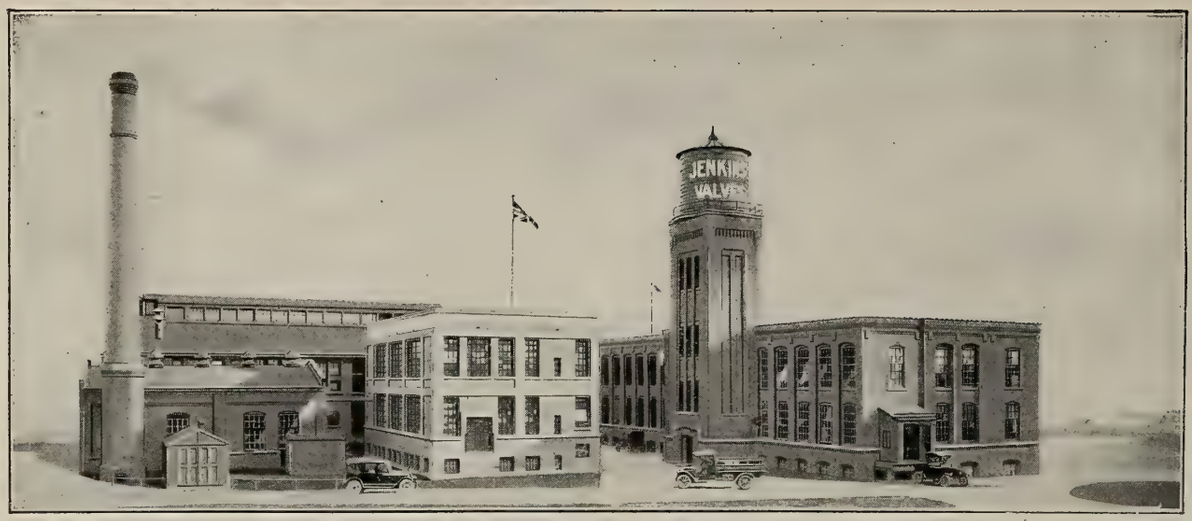
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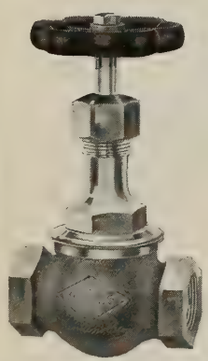
14 STRACHAN AVENUE - TORONTO, CANADA

Representatives in Eastern Canada—JAS. W. PYKE & CO., Limited, 232 St. James Street, Montreal

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Brass Valve Division, Jenkins Bros. Limited
Montreal, Canada



JENKINS BROS.' VALVES

Have a Host of Imitators



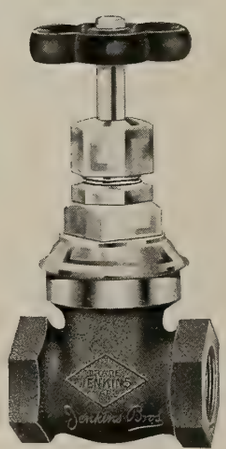
It pays to insist upon getting the genuine. Because it is only with genuine Jenkins Bros.' Valves that you are sure of the service which has given these valves their reputation.

The *appearance* of Jenkins Bros.' Valves can be copied, but the *service* goes only with the original.

There's a Jenkins Bros.' Valve for every service.

Look for the Diamond trade mark before buying.





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Jenkins Bros





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INDUSTRIAL HOSE

Tires Lowered the Cost of Hose

The policy which built the Goodyear tire business—and made Goodyears the largest selling tires in the world—has made possible lower costs for hose in industrial plants.

Hose built to fit the *needs* of many different industries.

Fabrics specially selected for hose. Rubber compounds brought to an exact, scientific standard. Construction governed only by the work the hose is to do.

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In foundry, paper mill, mine, railway, steel plant, and every other industry, Goodyear is setting new standards for hose.

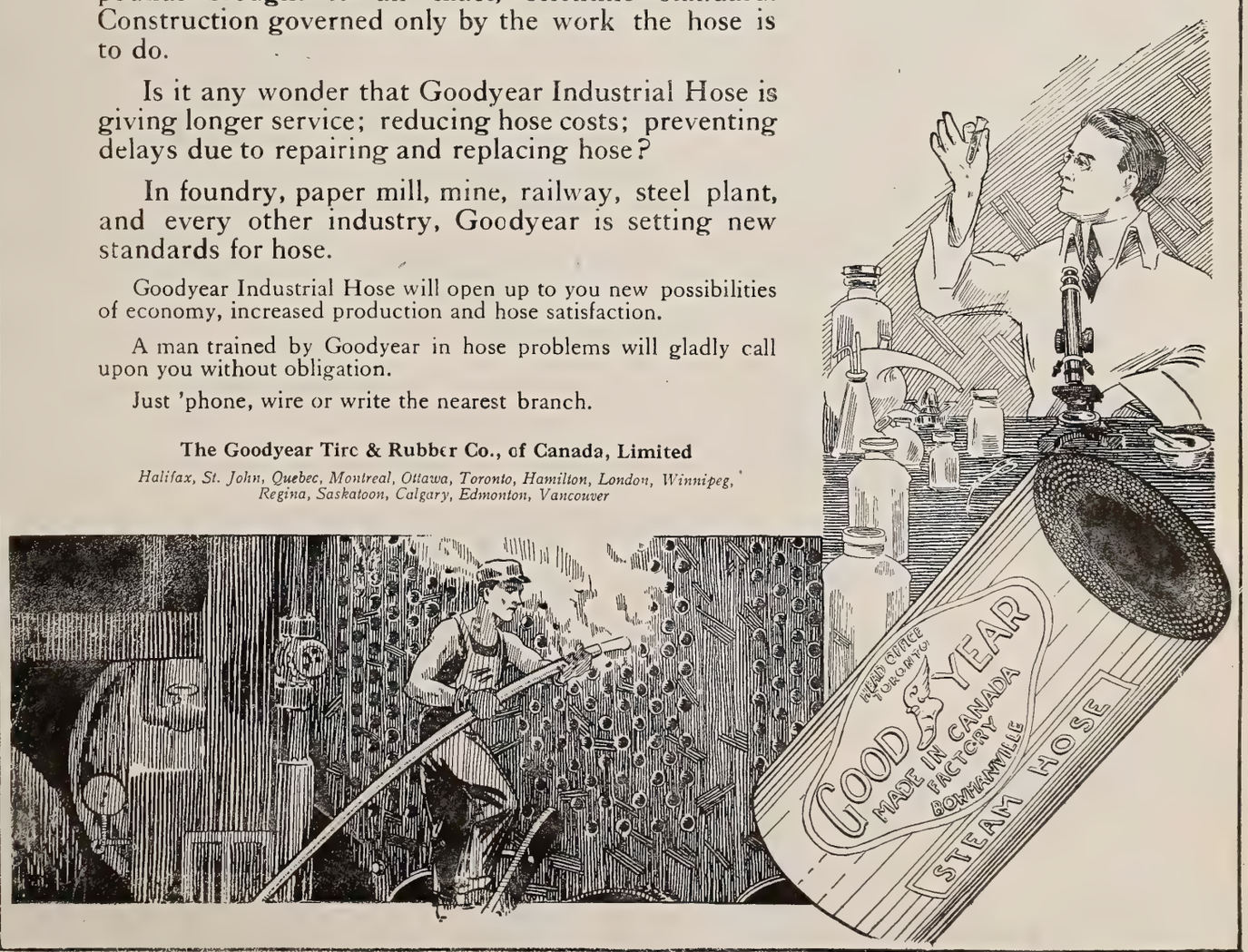
Goodyear Industrial Hose will open up to you new possibilities of economy, increased production and hose satisfaction.

A man trained by Goodyear in hose problems will gladly call upon you without obligation.

Just 'phone, wire or write the nearest branch.

The Goodyear Tire & Rubber Co., of Canada, Limited

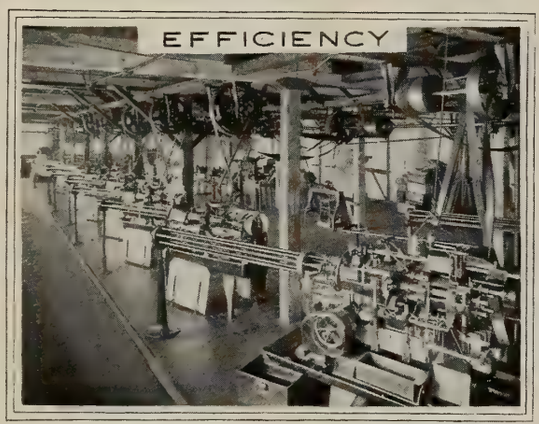
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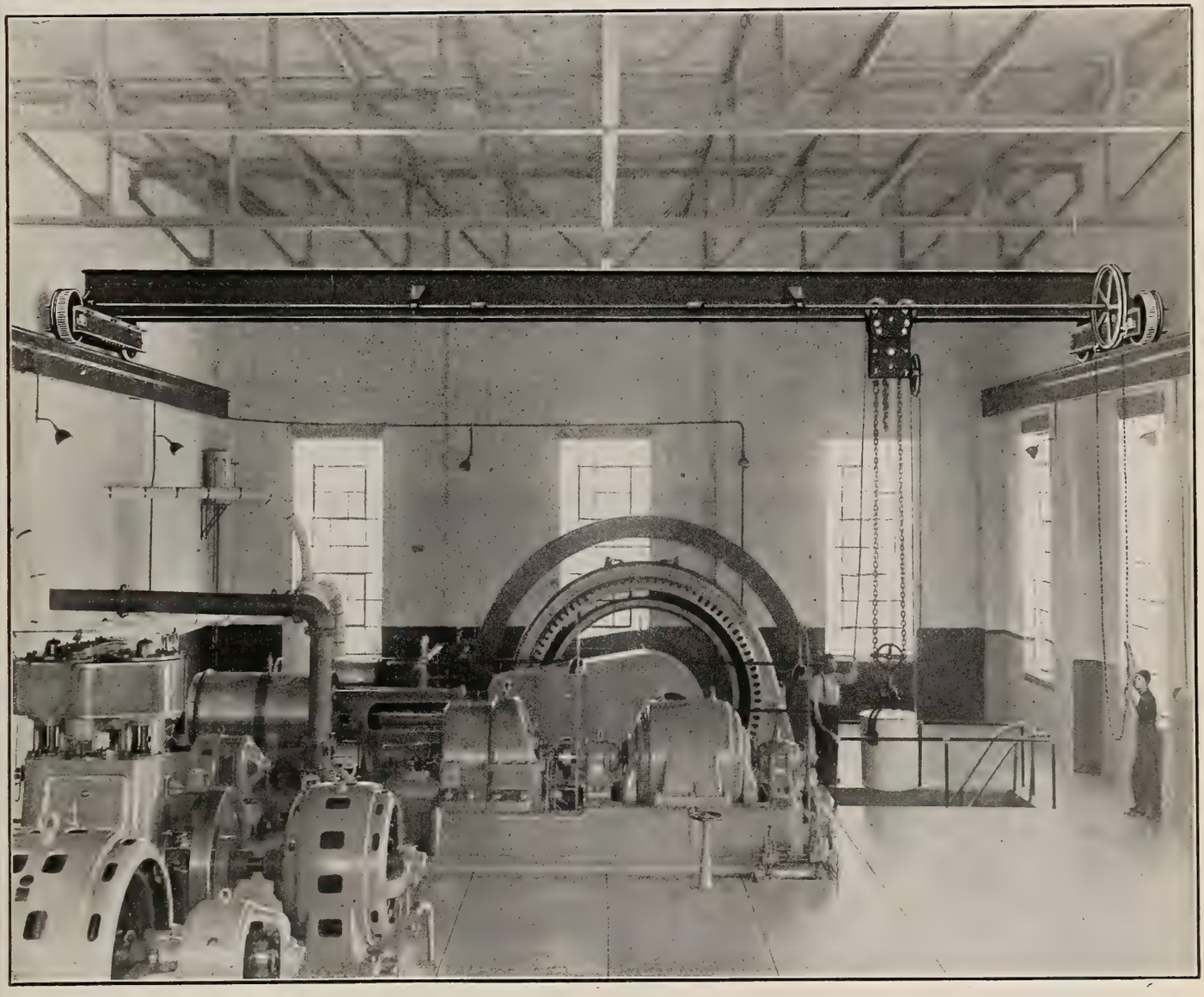






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WE SPECIALIZE IN THE MANUFACTURE OF MACHINERY FOR THE PULP AND PAPER MILL TRADE AS WELL AS ALL HYDRAULIC EQUIPMENT--TRY US

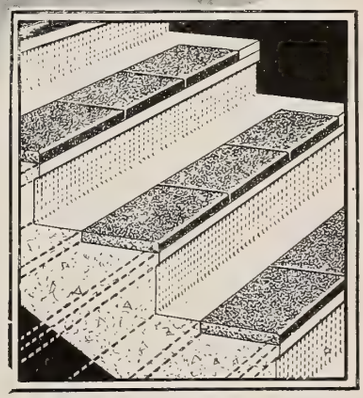
The Hydraulic Machinery Co.
Limited

Montreal - - - - Canada

ALUNDUM TILE

(Slip-proof)





Your inquiries are invited, and an opportunity for examining this product will be given.

From top to bottom—slip-proof.

Any stairway equipped with ALUNDUM SAFETY TILE is guaranteed against the slipping hazard.

The abrasive quality of the tile never wears away. It is present during the entire life of the tread, which for all practical purposes is limitless.

ALUNDUM TILE has a perfectly plane surface. There are no corrugations to catch refuse or serve as a means of catching the toe of the pedestrian and throwing him.

Architects who use ALUNDUM TILE assure themselves and their patrons of the best possible tread from all standpoints of slip-proof effectiveness, economy, sanitation, and safety.

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ELECTRIC FURNACE PLANTS

NIAGARA FALLS, N.Y. CHIPPAWA, ONT.

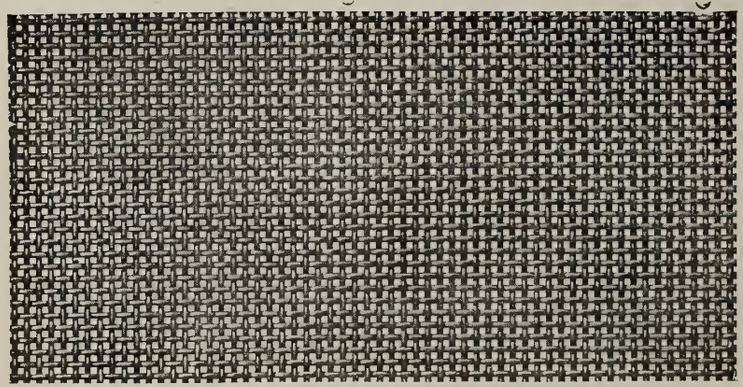
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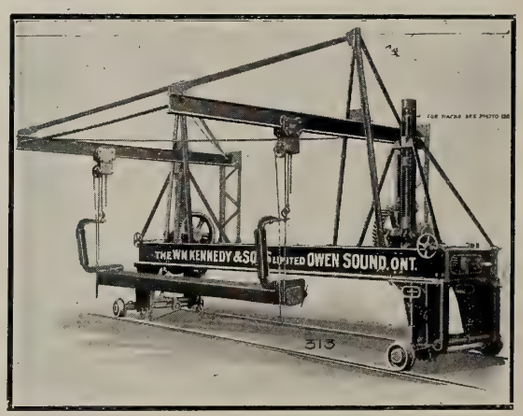
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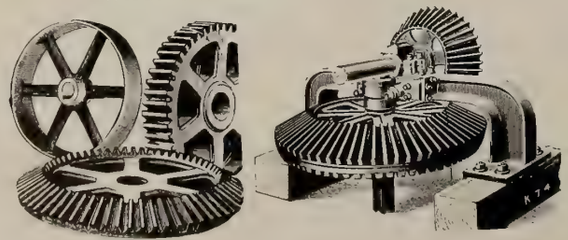


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Steel Castings

THE WM. KENNEDY & SONS, Limited - Owen Sound, Canada



"Little David" and Your Foundry

You are particular about the quality of your castings. You take care to see that vent holes and runners are properly arranged, sand carefully tested and screened, but are you always certain that your molds ARE RAMMED TO JUST THE RIGHT CONSISTENCY?

Rule of thumb methods and the day of guesswork have passed away. The only way to be sure of this point is to arm your molders with "Little David" Sand Rammers. When they are used castings never swell, pin holes are unknown, and no matter who uses them they deliver blows of just the right weight thirteen times faster than the best hand tamper and they never "soldier on the job."

To lift patterns, castings, or take the molds apart without "slicking," use a "Little David" Motor Hoist. It works without slips, jolts or jars. For trimming castings rapidly and cleanly use "Little David" Grinders and Chippers.

Ask for Bulletin 8000 covering all these labor savers today

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Sulphate of Ammonia Nitre Cake
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STEEL RAILS – Open Hearth Quality
Splice Bars Steel Tie Plates
Light Rails – 12 lbs. to 45 lbs.

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ALGOMA STEEL CORPORATION
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The Car For All Roads

OVERLAND 4 is a car for all seasons and all roads; attractive in appearance; economical in operation. It glides over the roughest roads with a smooth steadiness that is amazing.

This remarkable car has the two-fold economy advantages of *Triplex* Springs and light weight.

By protecting car and motor from the constant racking blows which mean wear, these springs greatly reduce upkeep expense. They make possible riding comfort with light weight; and Overland 4's light weight gives the further economy of low fuel and oil consumption and greater tire mileage.

Overland 4 is a quality car through out—in design, finish and riding qualities. Equipped complete from Electric starting and lighting to three speed transmission.

It is completely manufactured for Canadians in a modern Canadian manufacturing establishment.

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Sedans, Coupes, Touring Cars and Roadsters

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Branches: Toronto, Montreal, Winnipeg and Regina

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Manufacturers of Pig Iron

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"VICTORIA" FOUNDRY IRON

Strong—Soft—Neutral

"VICTORIA" MALLEABLE IRON

Furnished to all Standard Analyses

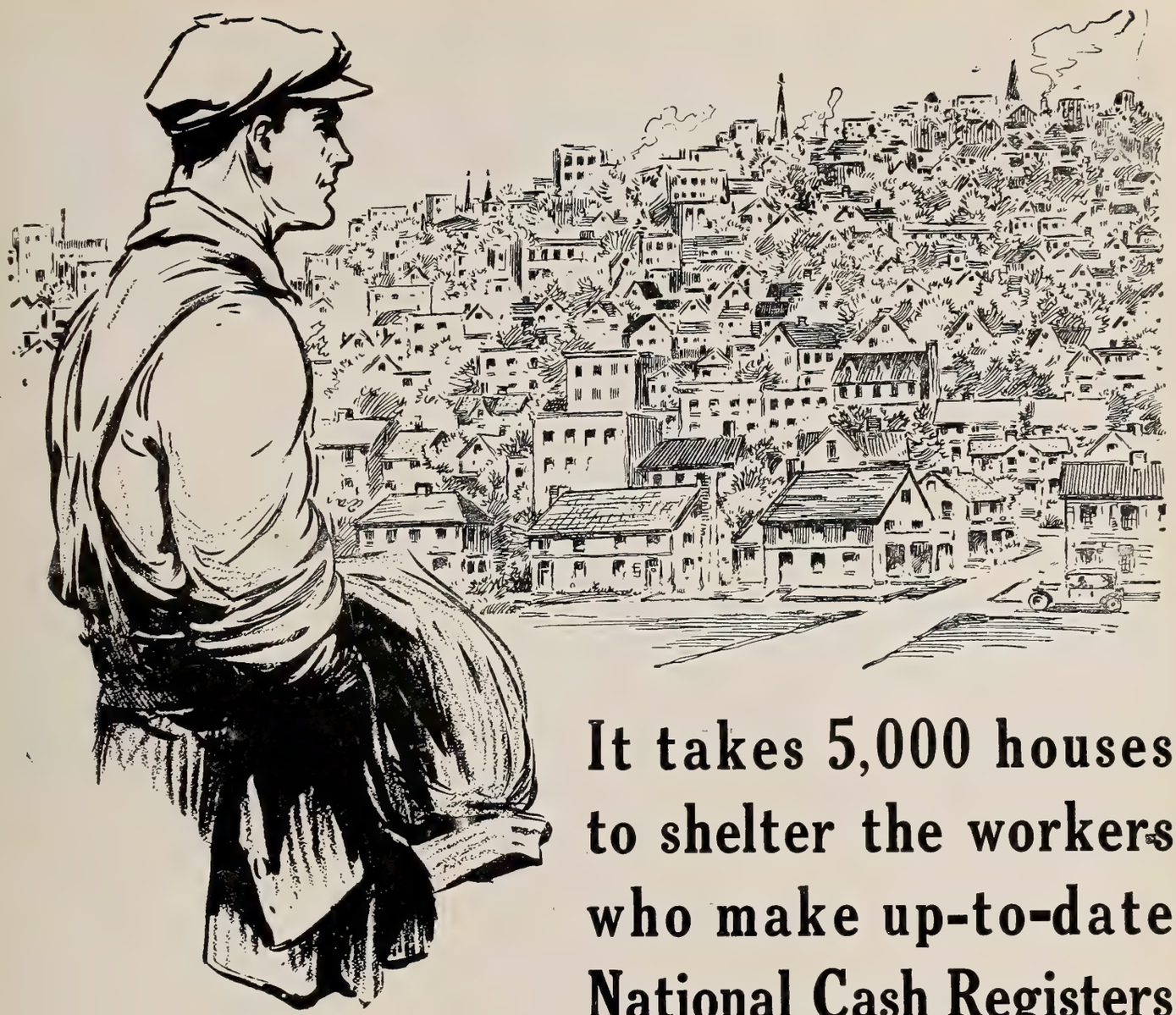
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M. A. HANNA & CO.

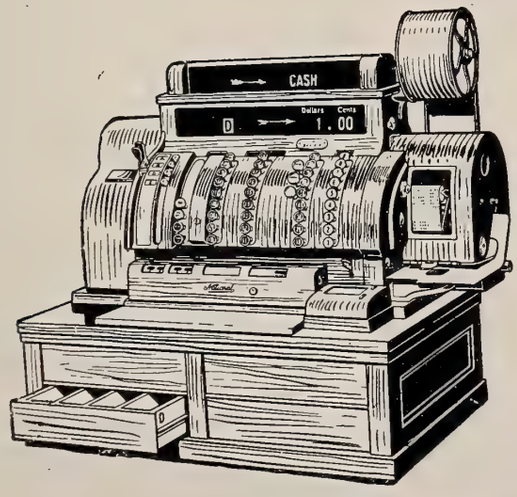
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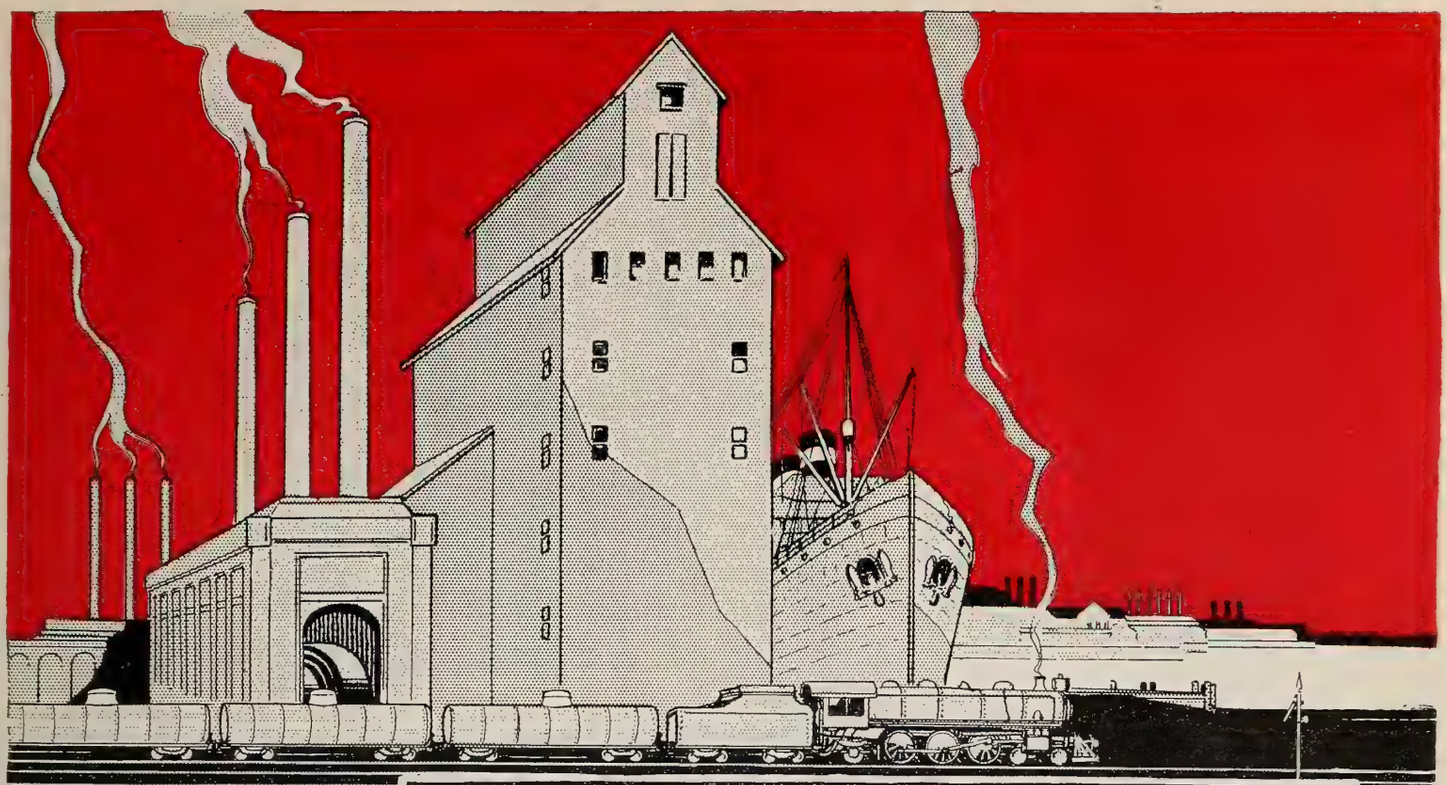
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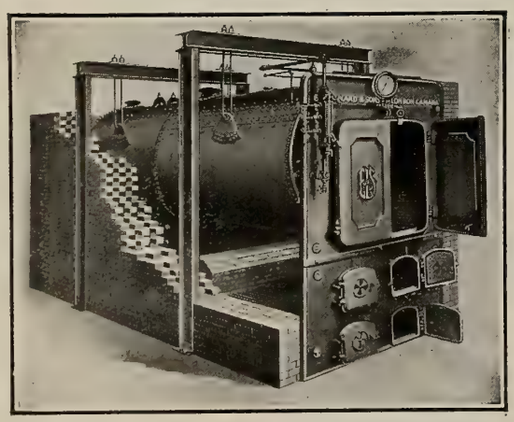
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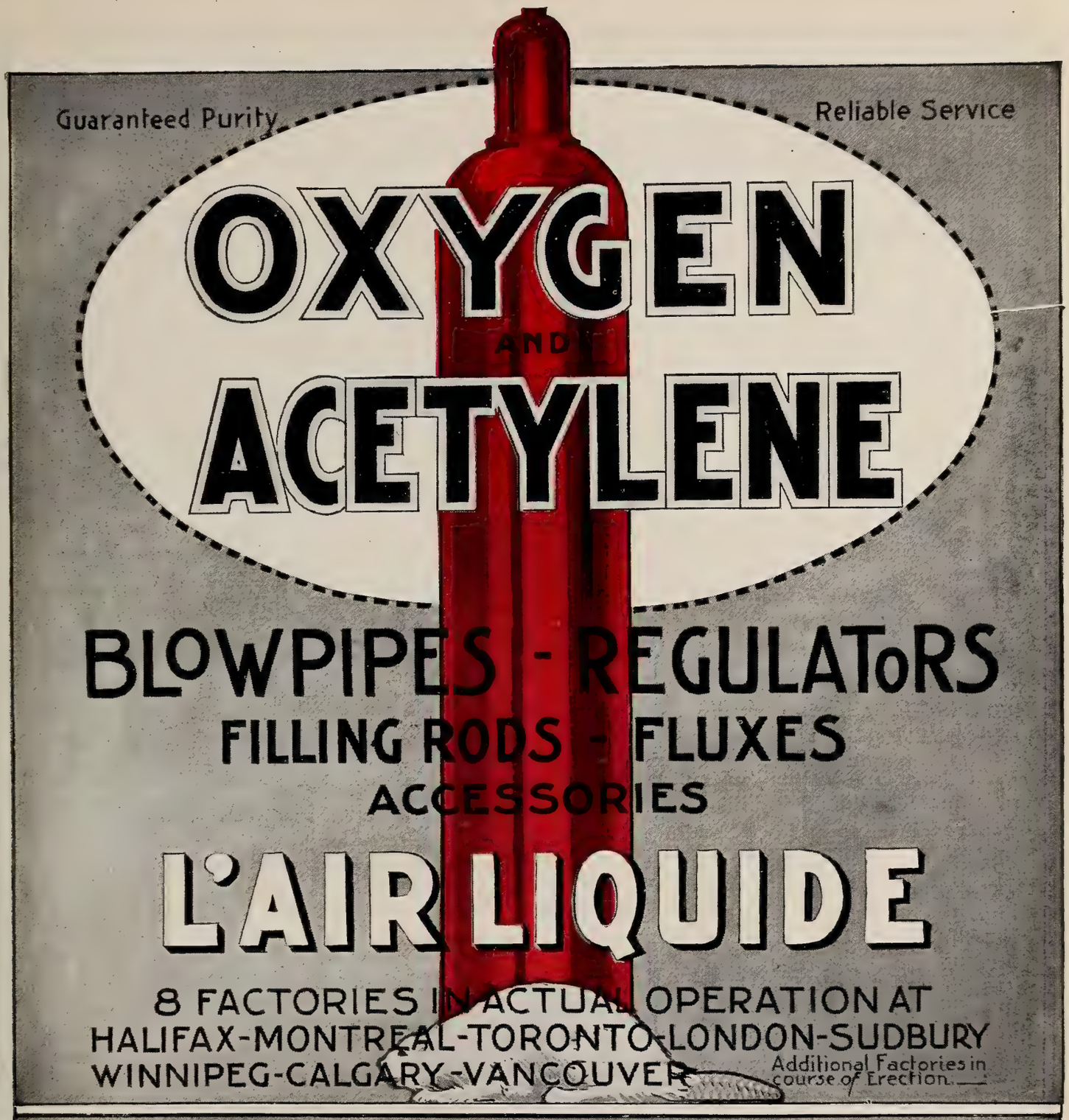
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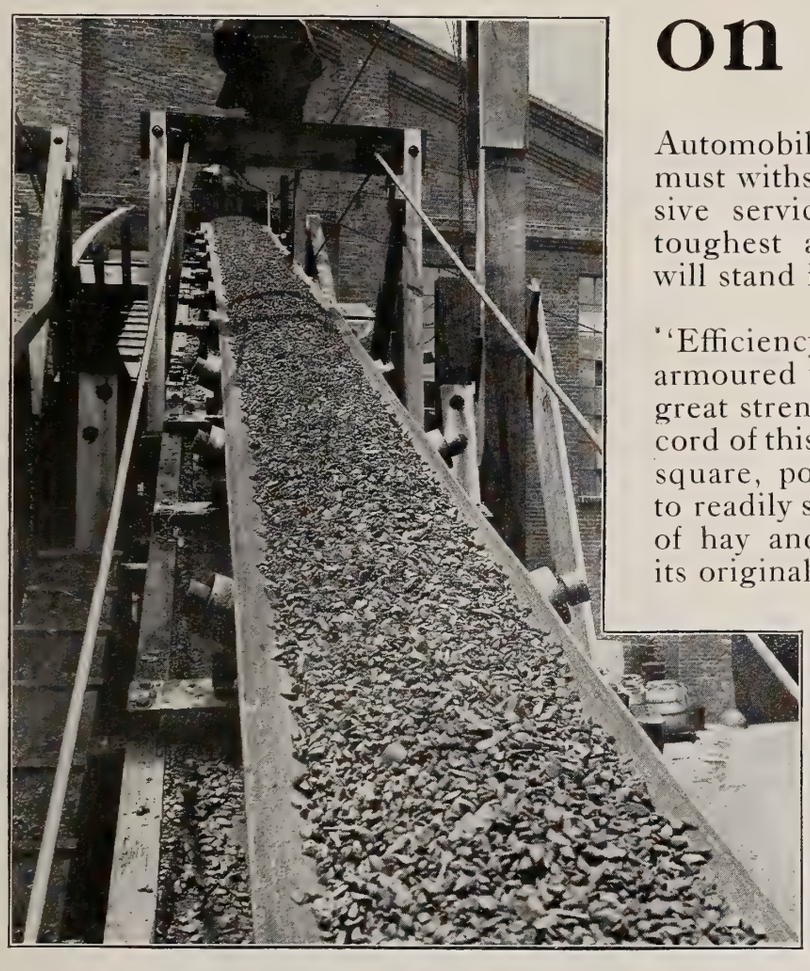
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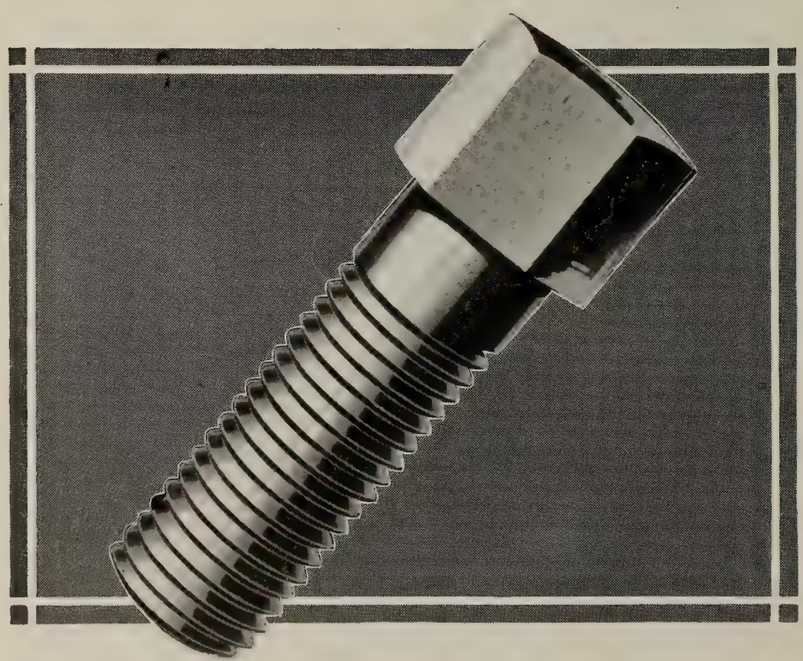
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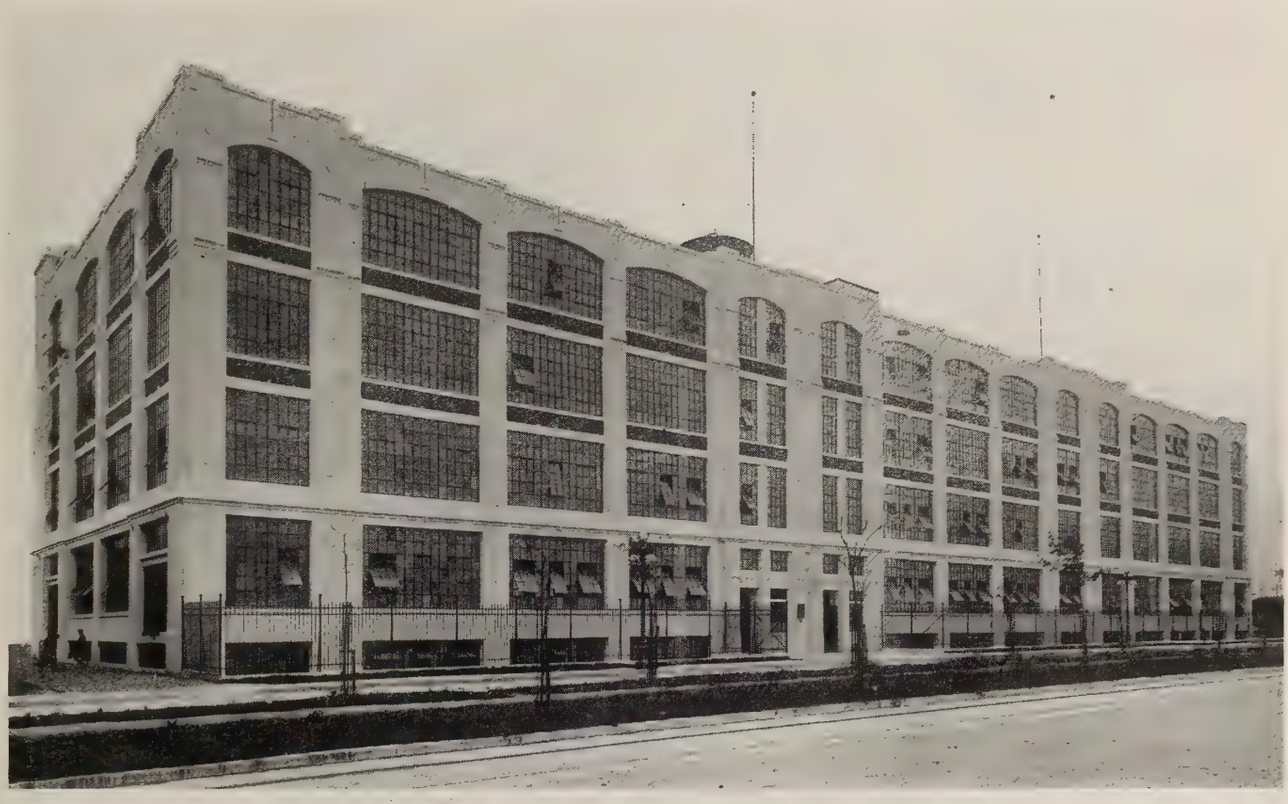
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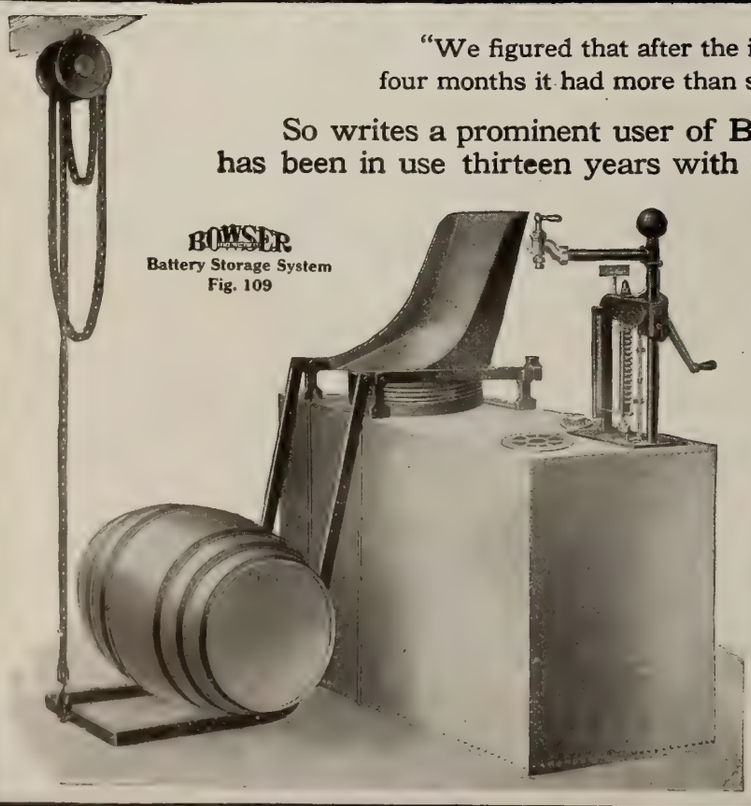
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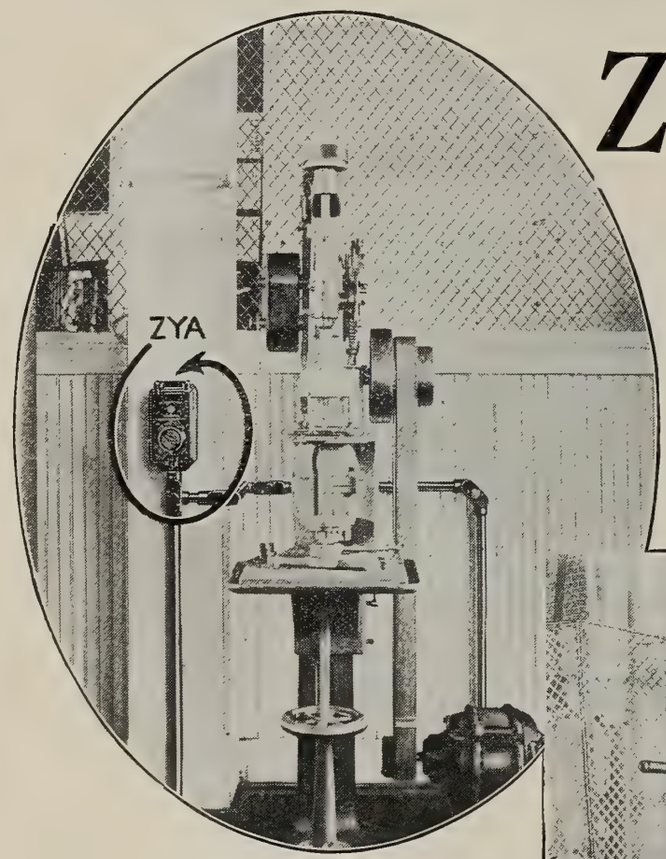
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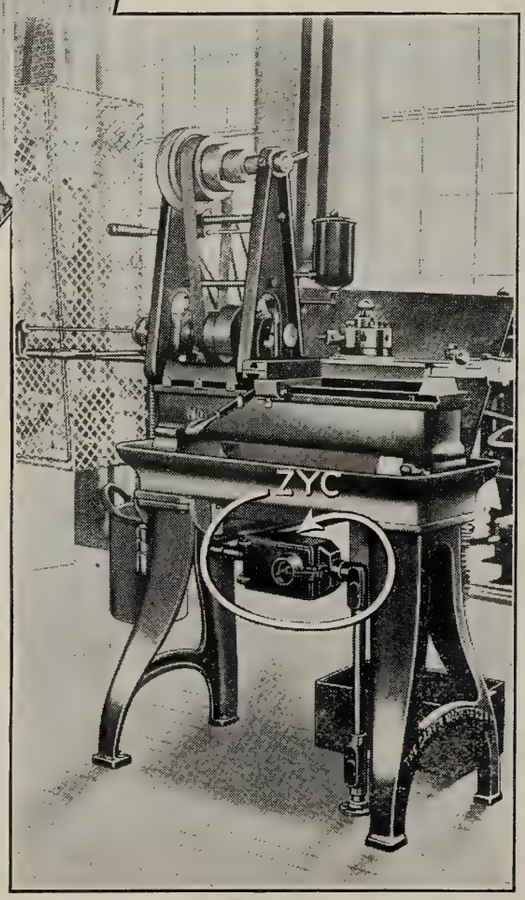
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ZY Condulets



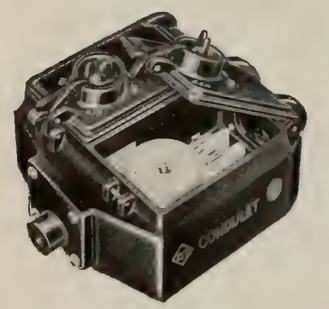
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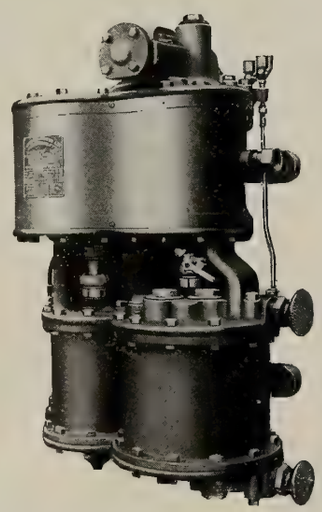
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INDUSTRIAL CANADA

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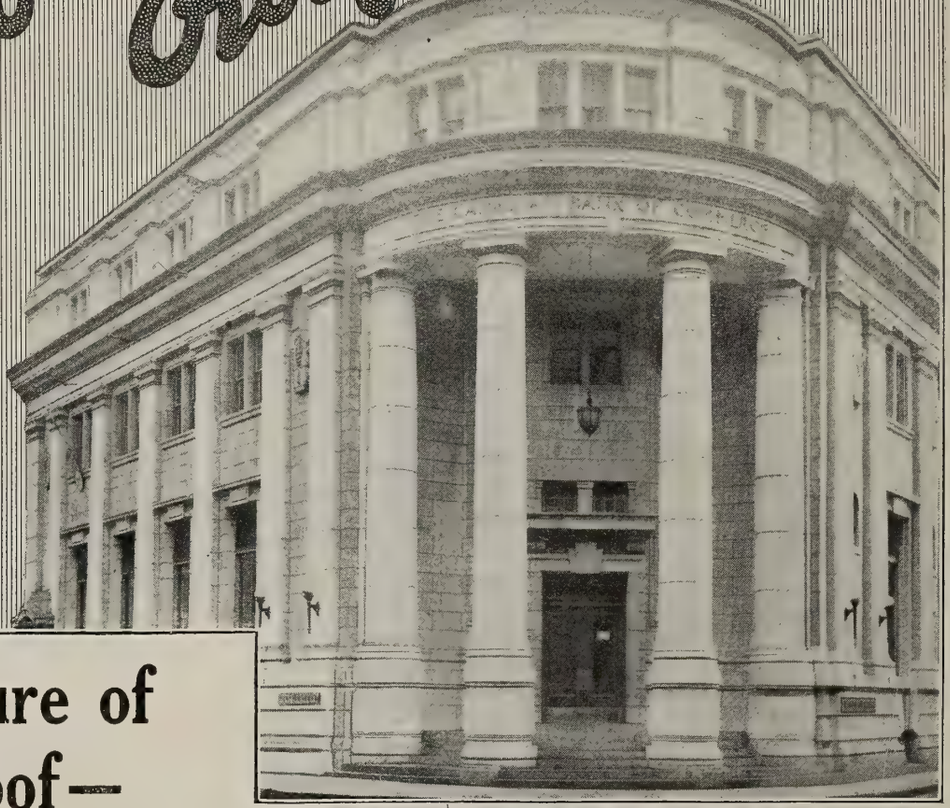
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Vol. XX. TORONTO, MARCH, 1920 No. 11

Editorial Comment

Made-in-Canada Goods

THE employment of architects and engineers who are citizens of other countries on building and contracting in Canada, tends to diminish the amount of Canadian-made goods used in construction. When a foreign architect is employed to design a building, he naturally specifies those goods with which he is most familiar, and, consequently, his specifications too often require or recommend the use of material which is not made in this country. In the letting of contracts, Canadian architects and engineers should be retained. There is a glamour about the prophet from the far country which tends to blind us to the merits of our own countrymen. We have very good architects and engineers in Canada, and those who are not quite up to standard through lack of experience, will never improve unless they are allowed to acquire experience. During the last five years, Canadians have shown what they can do when they get the opportunity and when responsibility is placed upon them.

When Canadian architects or engineers are employed on contracts, they incline to specify that Canadian-made material shall be used, if for no other reason than that they are more familiar as a rule with Canadian material than with material made in other countries.

It is idle for Canadian manufacturers to preach the made-in-Canada doctrine unless they practise it.

Farmers and Chambers of Commerce

WITH class movements so prevalent at the present time, especially among the farmers of the Dominion, it is rather an encouraging sign to find that agriculturists in the neighborhood of Guelph, Ont., are joining the Chamber of Commerce of that progressive industrial centre. This is a movement that should be cordially welcomed, both from the standpoint of the business man in the city and the dweller in the rural districts. The association of the two parties in the one organization, formed for the advancement of the entire community, will do much to break down prejudices and establish a hearty spirit of co-operation. The manufacturers of Guelph, coming in personal contact with the neighboring farmers, will be able to take a more sympathetic interest in the problems with which the agricultural industry is concerned, while on the other hand the farmers will unquestionably be disabused of many of the erroneous ideas which they have been holding regarding the operation of manufacturing enterprises. It is from all points of view a desirable step to take to enroll the farmers in our boards of trade and chambers of commerce and to have them feel that they form an important and responsible part of the business community.

Increase in Freight Rates

ON the return of the United States railroads on March 1st there is every indication that an advance in rates will be requested, but it is rather difficult to say exactly how much this will be. Various amounts have been mentioned, ranging from 20 per cent. to 40 per cent., but it is important to note that the new Bill, which will return the roads to private owners, directs the Interstate Commerce Commission in regard to this very question, and goes so far as to provide the amount of return which shall be given for two years from the 1st of March. This being the case, it would seem to be rather difficult for any horizontal increase in rates to become effective. It would appear rather that the rates would have to be re-aligned and this is, of course, quite a large order and would take considerable time.

In Canada we have heard remarks by President Beatty, of the Canadian Pacific Railway, and President Hanna, of the Canadian National Railways, as well as various press despatches coming from Ottawa, referring to an increase in freight rates in Canada about the same time as that in the United States, and the amount has been stated variously from 25 per cent. to 40 per cent.

There are many things, of course, which must be considered in regard to the Canadian National Railways as a whole. It has been stated that the Canadian National Railways have a very large deficit and that it must be met

by an increase in freight rates. It might be well to learn definitely what caused this deficit. It is true that there have been increases in costs of materials used by the railway companies and enormous increases in the wages paid their employees, but the question is, how much of the deficit of the Canadian National Railways is represented by these increases?

The question is a large one and every manufacturer and other shipper in the country should study this matter very carefully. The Transportation Department of the Association would be glad to have the views of any manufacturers (members of the Association), in regard to this important situation. It is urged that the matter should be studied, and studied carefully.

The Question of Customs Appraisements

WHEN sterling in New York is at $3.69 the tariff of Canada against British goods is practically eliminated; and only the enormous world demand for the products of United Kingdom factories, under conditions which clearly are temporary, prevents the flooding of our markets with shipments of goods from the United Kingdom. Evidence of this fact is found in the imports from the United Kingdom for January, 1920, which exceeded in value all such importations in any previous month of our history. As sterling falls in New York the conditions are accentuated. And if the value of sterling were determined for duty purposes by the exchange rate, customs duty would be collected on lower values than the fair market value of the goods as sold for "home" consumption in the United Kingdom. This would be contrary to the Customs Act of Canada; but if the concession could be, and were, granted, the loss in customs revenue would be very great. Moreover, it cannot be contended that transactions for "home" consumption in the United Kingdom are appreciated in price to the extent or in correspondence with the depreciated value of sterling in Montreal. This can be realized at once by consideration of our own condition for transactions in general for "home" consumption in Canada are not appreciated in price to the extent or in correspondence with the depreciated value of the Canadian dollar in the United States. The basis of sterling, the franc and the lira, still is gold, and it is to the interests of Canadian importers that there should be a settled basis for the valuation of imported European goods. If the rate of exchange were to be allowed in calculating the value for duty, it is probable that no two importers of the same goods would pay the same amount of customs duties. Thus, there would be all sorts of invidious discriminations.

The action of the Customs Departments of Canada in placing the same par valuation on sterling exchange which the United Kingdom attaches thereto in respect to sales for "home" consumption in that country, does not destroy, as some erroneously contend, the effect of the British Preferential Tariff of Canada. Examples of actual transactions will make this clear. With sterling in New York worth $3.69, the Canadian dollar in New York being at a discount of 13½ per cent., the value of the pound sterling in Montreal is $4.18. On this basis the customs duties, and laid down cost in Canada, on a direct importation from the United Kingdom into Montreal, as compared with a like shipment into the United States and reshipment thence to Canada, would be as follows:—

From United Kingdom Direct to Montreal.

1,500 lbs. tissue paper, £200; par value, $973.00.		
Duty at 15%, British Preferential Tariff, on the par value of the pound	$145 95	
Freight and insurance, say	7 00	
Actual cost in Canadian money, with sterling at $4.18	836 00	
		$988 95

From United Kingdom into United States and Reshipped thence to Canada.

1,500 lbs. tissue paper, £200; converted at $3.69	$738 00	
United States duty at 30%	221 40	
New York brokerage or commission, say	45 00	
Freight and insurance, say	7 00	
	$1,011 40	
If reshipped to Canada, ex U.S. Customs Bond, the General Tariff Rate would have to be levied on this sum of $1,011.40.		
Canadian duty on $1,011.40 at 25%, plus 7½% War Tariff	$328 57	
Dumping duty	151 65	
Freight, New York to Montreal, say	7 00	
Exchange, 13½% on $790.00	106 65	
Laid down cost in Canada		1,383 87
Difference in favor of making direct importation from United Kingdom to Montreal		$394 92

ANOTHER CASE.

From United Kingdom Direct to Montreal.

1,000 yds. woollen cloth at £1 per yd.; par, $4,860.00.		
Duty at 30%, British Preferential, on the par value of the pound	$1,458 00	
Actual cost in Canadian money, with sterling at $4.18	4,180 00	
Freight, insurance, etc., say	100 00	
		$5,730 00

From United Kingdom into U.S. and Reshipped thence into Canada.

1,000 yds. woollen cloth at £1 per yard; converted at $3.69	$3,690 00	
United States duty, 35%	1,291 50	
New York brokerage or commission, say, 5%	184 50	
Freight, insurance, etc., to New York	100 00	
Duty paid, fair market value in New York	$5,266 00	
If reshipped to Canada, ex U.S. Customs Bond, the General Tariff Rate would have to be levied on the sum of $5,266.00.		
Canadian duty on $5,266.00 at 35%	$1,843 10	
Dumping duty, 15%	779 90	
Exchange, 13½% on $3,974.00	536 51	
Freight, New York to Montreal, say	100 00	
Laid down cost in Canada		7.234 01
Difference in favor of making direct importation from United Kingdom to Montreal		$1,504 01

ANOTHER CASE.

From United Kingdom Direct to Montreal.

20,000 yds. unbleached cotton fabric at 1 shilling per yd., £1,000, or (par) $4,860.00.		
Duty at British Preferential Rate, 15%.	$729 00	
Actual cost in Canadian money, with sterling at $4.18	4,180 00	
Freight, insurance, etc., say	100 00	
		$5,009 00

From United Kingdom into U.S. and Reshipped thence to Canada.

20,000 yds., unbleached cotton fabric, £1,000; converted at $3.69	$3,690 00	
United States duty at 20%	738 00	
New York brokerage or commission, say 5%	184 50	
Freight, insurance, etc., to New York	100 00	
Duty paid, fair value in New York	$4,712 50	
If reshipped to Canada, ex U.S. Customs Bond, the General Tariff Rate would have to be levied on the sum of $4,712.50	$4,712 50	
Canadian duty at 25% on $4,712.50	1,178 00	
Dumping duty	706 80	
Exchange at 13½%	536 49	
Freight, New York to Montreal, say	100 00	
Laid down cost in Canada		6,495 79
Difference in favor of making direct importation from United Kingdom to Montreal		$1,486 79

The Canadian Customs appraisement of importations from the United Kingdom according to par value of sterling cannot be evaded by shipment of such British goods into the United States and reshipment thence into Canada. If any overseas goods are shipped into the United States and subsequently reshipped into Canada, the Canadian Customs, under the law as it stands, has to appraise such goods according to the duty paid, open market, usual home selling price for consumption in the United States. Thus, the cost of goods from the United Kingdom, plus carriage, insurance and other charges into the United States, including the United States duty and the profit which would accrue if sales were made in the United States, have all to be added together to arrive at the value for duty of such shipments from the United States into Canada. Also, such importations into the United States have to be entered at the general tariff rate instead of British Preferential Tariff rate. The result is that British goods cannot be shipped into the United States and reshipped into Canada except at a loss when compared with the laid down cost of like goods shipped direct from the United Kingdom into Canada. The provision in the Custom law of Canada referred to in the foregoing is Section 50, as follows:—

"The Governor in Council may provide that in the cases and on the conditions to be mentioned in the Order in Council goods *bona fide* exported to Canada from any country, but passing in transitu through another country, shall be valued for duty as if they were imported directly from such first mentioned country; provided that goods which have been entered for consumption or for warehouse, or which have been permitted to remain unclaimed, or which have been permitted to remain for any purpose, in any country intermediate between the country of export and Canada, shall not be considered as in transitu through such intermediate country, but shall be treated as goods imported from such intermediate country and be valued and rated for duty accordingly."

The regulations founded on this Section appear in Customs Memorandum No. 1097-B.

If the depreciation in sterling were to be allowed for Customs duty purposes, the same principle would have to apply to importations into Canada from the allied countries and also to importations from late enemy countries. Thus, a change from the present Customs requirements, to an allowance for exchange conditions, would promote sales in this country from late enemy countries, more than from any other country.

The German mark has a par value in Germany of 23.8 cents, but is worth about one cent in Canadian money. Allowing exchange as outlined would result in an article which sells in Germany for 1,000 marks ($238) being appraised by the Canadian Customs at one cent per mark, of $10. A case in point: One grade of German lead pencils were sold for export before the war at 26 marks per gross (equal to $6.18 in Canadian money). Within recent weeks they have been offered at the same price of 26 marks to Canadian merchants. If exchange were allowed, these pencils, if imported now, would have to be appraised by the Customs at about 26 cents per gross instead of $6.18; but 26 cents would scarcely buy the graphite used in their manufacture.

On the foregoing principle, goods purchased in Russian rubles should be appraised by the Canadian Customs as valueless, because the Russian ruble has no exchange value.

The adoption by Canada, for Customs revenue purposes, of this basis for the nominal valuation of goods from late enemy countries, would give to the products of those countries the most advantageous Customs tariff privilege for shipment into Canada that could possibly be extended to those countries by their greatest friend and ally. No single act of this country could be more pleasing to Germany than a change in our Customs law that would allow importations from Germany and Austria to be appraised to the exchange value of the German mark or the Austrian crown.

Australia absolutely prohibits importations from late enemy countries.

On January 14th, Australia issued a proclamation prohibiting the importation into the Commonwealth of:

(1) Goods manufactured or produced in or brought directly or indirectly from Germany, Austria-Hungary, Turkey or Bulgaria. Goods shall be deemed to have been manufactured or produced in Germany, Austria-Hungary, Turkey or Bulgaria, if more than 5 per cent. of the invoice value thereof has been derived from labor of persons resident in any of those countries, and the onus of proof of the country of manufacture shall be on the importer:

(2) The terms "Austria-Hungary" and "Turkey" mean those countries as existing before the war.

New Zealand likewise prohibits such importations.

The Dominion Government now has no power to prohibit or restrict importations from late enemy countries.

To do this there would have to be an Act of Parliament now that the War Measures Act has lapsed. And it is extremely improbable that any such prohibition would be authorized by Parliament.

Importations into European countries from North America are subject to the handicap of prohibitory adverse exchange rates. But an illustration of how these countries still further impede shipments from America appears in a recent order of the French Government. In this order France protects her markets by ruling American currency as being appreciated instead of her own currency being depreciated. Goods costing $1,000 in American money would have a par value of 5,208 francs. But France appraises such an importation at 11,600 francs for duty purposes. This raises the ad valorem tariff rates of France 123 per cent.

The United Kingdom applies the same rule on importations into that country from the United States and Canada.

It is a fact that in none of the European countries has there been appreciation in costs corresponding to the depreciated value of their currency in relation to the American dollar. And if such depreciation were allowed for duty purposes by this country in the appraisement of the currency of the exporting European country, the goods would not pay duty upon their true fair market value as sold for home consumption in the country of export. But the Customs law makes the value for duty of importations into Canada the fair market value as sold for home consumption in the country of export.

The exchange provisions appearing in the Customs Act of Canada were designed to meet the conditions in those countries whose currency standard is silver, such as Mexico, India, China, etc., where the value of the currency fluctuates in correspondence with the fluctuation in the price of silver.

When one considers that the depreciation of these currencies in relation to our money is so great as to far more than offset the Canadian Customs duty on imports it is ridiculous to contend that the Customs provisions destroy or attempt to destroy the British preference and the difference in present exchange values.

Spread the Gospel of Home Buying

THE good work of spreading the gospel of home buying goes steadily on, gaining in scope and effectiveness as more and more of the people become convinced of the great desirability of the movement. Resolutions galore are being passed by public and semi-public bodies expressing the conviction of members that only by lessening imports can we restore the Canadian dollar to its proper position in international exchange. And a great many articles are being written and published to the same effect.

Members of the Association who issue house organs or company publications might very well make use of these media to impress on their employees the importance of home buying. There are now a great many papers of the sort in Canada and in the aggregate they have large circulations and wield a good deal of influence. We have already referred to some of the arguments advanced by the editors of certain of these publications. Yet another example comes to hand in the February issue of *Gilt & Glimmer*, the house organ of Stauntons Limited, wall paper manufacturers, Toronto, in which the following article is published under the heading,—"What Is Your Dollar Worth?"

"A few weeks ago the Canadian Government shipped to Washington, D.C., the sum of twenty million dollars in gold. This was a payment, in part only, of a bill that the United States held against the Dominion for the difference between the value of merchandise that the two countries had purchased from each other during recent months. The direct object of this part-settlement was to bring down the rate of discount that owing to this large indebtedness the United States banks were able to charge on Canadian funds. The Canadian dollar would only purchase 89 cents worth of United States commodites, so in order to bring it nearer to par value twenty million dollars of our national treasure had to be surrendered. This is as much gold as our Northern mines have produced since January, 1919, and it pledges their production till next June. It is gone forever, no chance of any of us laying our hands on one solitary shekel of it again.

"And what have we received in exchange? A too large number of luxurious automobiles which quickly depreciate in value, a lot of silk or near-silk that could hardly be considered essential, nearly twenty-three and a half million dollars worth of fruit, yet Canada produces the finest fruit in the world, and with a possible few exceptions we could well live on the home-grown variety. There was some wall paper, too, which helped to swell the bill. Then there were a number of other things that could have been left outside. Finally there were necessities such as cotton and coal which we could not reasonably do without.

"So just because people must ride in imported cars and wear imported silk (alleged) apparel, and devour imported fruits, and decorate their homes with imported wall papers, unless we surrendered our gold, we were threatened with the alternative of obtaining only 89 cents worth of coal for one dollar of Canadian currency. Pretty hard on some of us when the mercury slips down below zero!

"One of America's greatest statesmen, none other than Abraham Lincoln himself, has wisely asserted:

"'I know little about tariff, but this I do konw, when I buy goods made abroad I get the goods and the foreigner gets the money, but when I buy goods made at home I get both the goods and the money.' In this case the foreigner is getting our money and giving us only 89 cents worth of merchandise for each dollar he receives from us.

"Then let our Canadian people buy Canadian products for reasons that in part may be simply set forth:

"1. Because they are of *good quality and value.*

"2. In order to bring back the full value of the Canadian dollar in the United States so that it will purchase one hundred cents worth of *necessities.*

"3. In order to give ample employment at fair wages to Canadian workers.

"4. In order to keep Canadian money at home so that it may circulate amongst our own people.

"5. In order to encourage Canadian enterprise and ability.

"So instruct your sales-people to advocate the purchase of Canadian-made goods at all times. Advertise Canadian-made goods constantly. Teach your customers that it is to their advantage to purchase naught else than Canadian-made goods. Start doing it now."

The Canadian Paper Trade Association has had the courage of its convictions. At a meeting held on February 6, in Toronto, the following resolution was passed:—

"Owing to the extremely adverse rate of exchange existing against Canada, we strongly recommend that the members of our Association refrain from purchasing in the United States (wherever possible) until the rate of exchange becomes more normal."

News and Views of the Association

There will be found each month in this department a record of the various activities of the Canadian Manufacturers Association during the preceding month. The information is supplied to INDUSTRIAL CANADA officially, and all members of the Association are urged to acquire the habit of reading and checking over the contents of the department carefully in order to keep themselves posted on the work of the Association

Executive Council Meeting

The regular monthly meeting of the Executive Council for February was held at the King Edward Hotel, Toronto, on the afternoon of Thursday, February 26. The chair was occupied by the first vice-president, Mr. J. S. McKinnon, and there was a very representative attendance of members, quite a number being present from outside points.

A warm welcome was extended to Mr. John F. Ellis, whose resignation from the position of treasurer on account of ill-health was accepted with regret at the January meeting of the Council. Mr. Ellis has since been greatly improved in health, and has signified his willingness to retain office, at least until the next annual meeting. The Council, accordingly, considered his resignation as being withdrawn.

It was announced that, providing the vaccination requirement was lifted, the next meeting of Council would be held in Montreal. Failing that, it will probably take place at Ottawa.

Membership

The special membership campaign, which was begun on December 1 and is still being continued in certain localities, has resulted, to the end of February, in the securing of 492 new members. These are divided among the several divisions as follows: Ontario, 200; Quebec, 151; Maritime, 75; Prairie, 34; Pacific, 32. Reference was made at the February meeting of the Executive Council to the splendid work done by Mr. H. A. Telfer, Chairman, and the Membership Committee, in connection with the membership drive.

Ontario Division Luncheon

A luncheon arranged by the Ontario Division was held at the King Edward Hotel, Toronto, on February 26, when members were privileged to hear an address from Professor L. W. Gill, M.Sc., the recently appointed Director of Technical Education for Canada. Dr. Gill reviewed the Parliamentary history of technical education up to the time of the passing of the Technical Education Act last year, and gave the C.M.A. and the Trades and Labor Council credit for having fathered and mothered the legislation. He appealed for the continued support of the manufacturers in carrying out the purpose of the enactment. What had been accomplished to date was explained, and an outline given of the principles under which it was hoped to perfect the system. Following Dr. Gill's address, a vote of thanks was moved by Dr. A. C. McKay, principal of the Central Technical School, Toronto, and seconded by Charles Marriott, president, Toronto Board of Trade.



Convention Headquarters

Hotel Vancouver, one of the finest of the C.P.R.'s chain of hotels, where the 1920 Annual Meeting of the Association will be held

Motion Pictures

During the past month, on instructions from the Executive Council, an arrangement was concluded whereby Trade Sections of the Association may obtain Canadian-made films at a reasonable price, and have all their rights and interests protected. The Commercial Intelligence Department issued a circular on the subject, inviting members, if interested, to advise the secretary or chairman of any trade organization with which they were connected, so that a full discussion of the situation from all angles might be had. It was reported at the February meeting of the Executive Council that several groups of industries are now making preparations to have their industries filmed.

Exhibition Trains

A communication has been received by the Association from the Minister of Trade and Commerce, outlining a proposal to arrange for a train loaded with made-in-France products to tour Canada, and for a reciprocal proposal for a train of made-in-Canada products to tour France. These proposals were considered by the Executive Committee at its last meeting, and the recommendation was passed on to



Amid a Sea of Mountains

The valley of the Bow River at Banff with the famous Banff Springs Hotel in the foreground,—a prospective stopping off-place for the C.M.A. excursion party

Council for its approval that, while the Association would welcome and approve the suggestion that a made-in-France train should tour Canada, it did not think that it would be possible to organize a made-in-Canada train for France at the present time.

Settlement of Pre-War Debts

Through the Ottawa office, a statement has been received from the Under Secretary of State which intimates that the Trading with the Enemy Act is still in force as applying to uncompleted pre-war transactions, and that direct payment or acceptance of payment on pre-war transactions is not legal, and does not release obligation to pay. The Government policy for handling this phase of the question, together with the reparation by former enemies for Canadian property sequestrated, commandeered or destroyed by the German Government, or for losses incurred through acts of illegal warfare, has not yet been determined upon, but it is practically certain to be handled through some central clearing office. In the meantime, the whole question will be carefully followed out by the Association, and information conveyed to the membership through a circular.

Inter-Empire Trade

In accordance with a request from the Quebec Division Secretary, the Commercial Intelligence Committee have been giving consideration to a letter from H. M. Trade Commissioner's office at Montreal, in which it was pointed out that statements have been made by Canadian manufacturers, protesting against their inability to obtain supplies of various raw materials, grown or produced within the Empire, direct from business houses located in the Empire, since agents and brokers, with headquarters in New York, have been granted control of all North American sales territory, including Canada.

The general policy for the stimulation of trade through Imperial channels, wherever possible, was re-endorsed by the Committee, but it was felt in many of the instances brought before the Committee that any change rested largely with the British or Imperial house concerned making a different disposition of their selling arrangements, as may be warranted by the extent of the market in Canada for the commodity they desire to dispose of, and by the additional services or mutual advantages accruing to the Canadian importer and the Imperial exporter. It was pointed out that Imperial producers were more than ever alive to the value of the Canadian market, and that the natural course of such business was in the direction outlined above, whenever it became practicable to handle business economically through Canadian channels.

The Committee have recommended that H. M. Trade Commissioner be assured of the co-operation of the Association wherever possible.

Transportation Expert to Visit Maritimes

On instructions from the General Manager, Mr. G. P. Ruikbie, of the Transportation Department, left on March 2 for a visit to Maritime Province points, in order to give consideration to the question of freight rate adjustments from the Maritime Provinces to points in Ontario and Western Canada. It is the object of this investigation to give every assistance to members in the Maritime Provinces. The question of rates is being gone into very carefully, and every effort will be made to have the matter given proper consideration.

Cloak and Suit Section

An application has been received from a number of cloak and suit manufacturers, who are members of the Association, asking permission to form themselves into a section of the Association. As the applicants have conformed to the regulations set forth in the by-laws, the Executive Committee recommended to Council the approval of the application, which has been granted.

Calgary Branch Officers

At a meeting of members of the Calgary Branch, held on February 5, the following officers were elected: Chairman, R. J. Hutchings, Great West Saddlery Co.; Vice-Chairman, C. J. Williams, Alberta Box Co.; Hon. Secretary, P. S. Woodhall, Sheet Metal Mfg. Co. The former officers were: Chairman, Wm. Georgeson, Tuxedo Coffee & Spice Mills; Hon. Secretary, Wm. Innes, P. Burns & Co.

Co-ordination of Labor Laws

A communication has been received from the Minister of Labor, stating that he proposed to assemble a commission for the purpose of co-ordinating and unifying labor laws of Canada, in accordance with a resolution passed at the National Industrial Conference, held in Ottawa, September 15-20, 1919. This commission will assemble in Ottawa about the end of next month. The Minister of Labor has asked this Association to name the representative of the employers on this Commission.

Made-in-Empire Shopping Week

The Trade and Industry Committee of the Royal Colonial Institute, London, England, have been working on a proposal to establish simultaneously, in all quarters of the Empire, a made-in-Empire Shopping Week, to take place during the week in which Empire Day occurs next year. The Council of the Royal Colonial Institute have approved

of the plans outlined, and a request has come forward that the C.M.A. express its considered opinion in regard to the proposal. The Commercial Intelligence Committee have had the matter in hand and, while approving of the underlying principles, will give the proposal further consideration.

Canadian Goods for Big Hotel

Effective work in the direction of securing consideration for Canadian materials and furnishings in connection with the construction of the big addition to the King Edward Hotel, Toronto, was done last month by a special sub-committee of the Toronto Branch Executive. This sub-committee, consisting of W. C. Coulter, the Branch Chairman; S. R. Parsons, Thomas Roden, J. E. Walsh and H. Macdonald, waited on Mr. O'Neill, general manager of the hotel company, and urged upon him the desirability of using Canadian products to the greatest possible extent in the building operations soon to commence. Mr. O'Neill stated in reply that it was the desire of the management to give the preference to Canadian-made goods, and added that any manufacturers making goods needed by them would receive every possible consideration when it came to buying.

Activities of Quebec Division and Montreal Branch

By R. W. Gould
Secretary, Quebec Division, C.M.A.

Many matters of Dominion-wide importance have been occupying the mind of the Executive, both of the Province and the Montreal Branch, during the past month. The "Travel in Canada" suggestion, which came from head office recently, has been well received also. Manufacturers have warmed up to the suggestion wonderfully, and Quebec will fall in line at once in any scheme of this kind, calculated to make the Canadian take a greater interest in his own country as a vacation land.

We almost felt equal to Toronto at the Montreal office one day this month, when we had a visit from the General Manager, Mr. J. E. Walsh; Mr. S. B. Brown, Assistant Manager, Transportation Dept., and Mr. Alex. Marshall, of the Commercial Intelligence Department. On that day we could have very nearly held up our end against head office in any matter. The visits of Messrs. Walsh and Brown to the Montreal Branch during the past month have been heartily welcomed by the members. When we see them often we are filled with the realization that we are a real factor in the Association, and headquarters regards us as such.

Montreal promises a good representation at the "Get-Together" Luncheon, to be held in the City of Quebec on Thursday, March 4th, at the Chateau Frontenac, when the opening gun will be sounded in a membership campaign in that city.

The Division has made its helpful influence felt to a considerable extent during the month in the assistance it has given the Dominion Bureau of Statistics in collecting the census of industry returns. Mr. R. H. Coates, the Dominion Statistician, has written the Branch Secretary, thanking us for our assistance and co-operation.

The movement on foot here to hold a World's Fair in Montreal in 1925 has not gone unnoticed by the Branch. Lt.-Col. W. J. Sadler, Chairman of the Montreal Branch; Mr. C. Howard Smith, Vice-Chairman of the Provincial Division, and Mr. S. J. B. Rolland, of the Montreal Executive Committee, have been named to look after the interests of the manufacturers of Quebec in this matter, should it take definite shape. Mr. T. P. Howard, the Dominion President, is also taking a hand.

New members are constantly coming in, and the services of the Association are being more and more appreciated.

A last word. Quite a number of our Quebec manufacturers are planning to attend the annual convention on the Pacific Coast in June next. The Quebec Division is determined to be well represented on this occasion.

Alberta Manufacturers Meet

Interview Government

A meeting of members of the Alberta Branch, C.M.A., was held in Edmonton on February 9 and 10, with more than thirty members in attendance. The chair was occupied by C. G. Robson, Edmonton, and among those present were:

From Calgary: M. J. Hutchings, Great West Saddlery Co.; Brig.-Gen. H. F. McDonald, Alberta Industrial Development Co.; R. L. Fowler, R. L. Fowler & Co.; P. S. Woodhall, Sheet Metal Manufacturing Co.; Wm. Tunis, P. Burns & Co.,



A Sight Worth Seeing

Train emerging from the lower portal of the world-famous spiral tunnel near Field, B.C., on the C.P.R. transcontinental

Ltd.; H. Hutchings, Western Printing & Litho Co.; C. Y. Williams, Alberta Box Co.

From Medicine Hat: R. P. Stewart, Alberta Clay Products Co.; W. A. Church, Alberta Linseed Oil Co.; J. B. Swan, Ajax Coal & Mining Co.; Geo. Preston, Lake of the Woods Milling Co.; A. Andrews, Ogilvie Flour Mills Co.; Geo. Lydratt, Red Cliff, Dominion Glass Co., Ltd.

From Edmonton: A. W. G. Clark, Edmonton Cement Co.; C. G. Robson, W. H. Clark & Co.; A. W. Challand, J. J. McLaughlin Co.; J. H. Millar, Acme Brick Co.; C. G. Sheldon, Humberstone Coal Co.; J. L. Moldor, Swift Canadian Co.; G. M. Hall, Edmonton City Dairy; H. F. McKee, Gainers', Ltd.; Mr. Courtney, Courtney Man. Co.

On February 10 twenty-five members of the Branch engaged in a discussion of manufacturing problems with the provincial cabinet. The delegation expressed themselves as being sympathetic with labor, averse to the granting of any special privileges, and in favor of uniformity of laws among the provinces, but impressed upon the Government their desire that before any legislation is enacted, which directly affects the business and interests of manufacturers, that members of the Association be advised of the proposed laws, and be given full opportunity for expressing their stand on such matters.

R. J. Hutchings, of Calgary, was the first speaker. Mr. Hutchings laid stress upon the necessity of encouraging manufacturing in the province, inasmuch as Alberta possessed almost unrivalled advantages in this respect. But possibly 60 per cent. of the initial manufacturing enterprises failed. While they desired, above all things, to be fair to labor, there must not be legislation which would lay any heavier burden upon manufacturing, and which would only serve to cut down production, already seriously falling short, and making the cost of living ascend more and more.

"The Government's slogan of 'Greater Production' cannot be harmonized with the agitation for shorter hours," said Mr. Hutchings. He went on to say that in some branches of business orders were plentiful, but uncertain markets and rising costs of raw material, with the certainty that there was inflation impossible to be permanently maintained, made manufacturing a decidedly precarious undertaking at the present time. This point was emphasized by other speakers repeatedly.

Charles Pratt, of Medicine Hat, urged more uniformity of laws affecting manufacturing. Alberta products were sold all over Canada, and conditions of production must be made as nearly equal as possible, in order to meet competition. The manufacturers asked fairness in legislation, and nothing more.

Secretary G. E. Carpenter, of the Prairie Division, C.M.A., complimented the Alberta Government for their courage and vision in assisting industrial research. They needed encouragement, but asked no special favors. Due to the fact that sixty per cent. of western manufactured goods must meet continental and world competition, there must, however, be no undue burdens laid on the shoulders of the western concerns. Mr. Carpenter also commended the Alberta Government highly, and his statements were applauded when he said that in the system of state insurance already carried out in the province the cabinet had strongly opposed any placing of undue burdens on manufacturers. Two years had shown this policy to be soundly based and a real success.

In view of the unsettled state of world affairs, Mr. Carpenter asked that the provincial legislature delay sanctioning the labor conventions of the peace treaty until such time as other allied countries have adopted them; otherwise, manufacturers here might not have a ghost of a chance in competition with places where the conventions would not be in force. However, Canadian manufacturers were willing to meet all competition on a legitimate level and under the same international standard of working hours, wages, etc.

Hon. A. G. Mackay suggested that labor and the manufacturers hold conferences, and try and get together on many of the issues involved, before the Government is approached. Mr. Carpenter said this was desirable and practicable in many cases where issues were purely local, but in export business this was not such an easy matter.

Premier Stewart assured the delegation of the Government's desire to see manufacturing encouraged in the province. He wanted uniformity of laws, so that Alberta manufacturers were on the same basis as those in other provinces.

Before adjourning, the delegation, on an explanation from Mr. Boyle, declared themselves in favor of inspection of factories by the Compensation Board, instead of by both Board and Factory Act officials. Mr. Boyle said this legislation was under consideration, and proposed changes also have in view a rating on the basis of merit in factory conditions and equipment. This was heartily approved by the delegation.

Activities of Toronto Branch

By H. MACDONALD
Secretary, Toronto Branch, C.M.A.

The Toronto Branch Executive have given further consideration to the effect of the harrassing restrictions imposed by the city under the smoke by-law, which are calculated to discourage industries from locating in Toronto district. The Committee have decided that, if industries are to experience further trouble, action will be taken in support of a rescission or modification of the present regulations.

British Immigration

The Toronto Branch Executive have appointed the following Committee to consider the best form of organization to assist and systematize the transportation of British immigrants anxious to come to Canada, namely: Messrs. H. A. Telfer, J. Allan Ross, H. N. Cowan and C. E. Edmonds.

Advisory Industrial Committee

Owing to increased engagements as first Vice-President of the Association, Mr. J. S. McKinnon has retired from the Advisory Industrial Committee of the Board of Education, and Mr. Henry H. Mason has also tendered his resignation, owing to business engagements. Both these gentlemen have rendered long and efficient services on the Committee. Mr. W. C. Coulter, the chairman of Toronto Branch, and Mr. W. H. Shapley were appointed in their stead.

Membership Campaign

As the result of the special Membership Campaign which was begun on December 1st, and is still being continued, 90 new members have been added to the branch, making the present membership 925.

Shortage of Power.

A special committee of the Toronto Branch has had conferences with the Commissioners and officials of the Toronto Hydro System, owing to the loss and trouble occasioned to the industries within the Toronto district, largely

due to the changing weather conditions and consequent ice trouble, which seriously reduced the output of the plants at the Falls, which supply the system. It was explained by the general manager of the Toronto system that one of the plants from which the whole Hydro demand was normally 60,000 horse-power, recently supplied only about 5,000 horse-power. The capacity of the other plant was reduced to about fifty per cent. and the power available for the system in Toronto was thus less than one-half what was required to serve customers.

In order to relieve the present conditions and make provision to meet the demand until the completion of the Chippewa development, Mr. Couzens explained that this could be met:

1. By the purchase of sufficient additional power generated by water or steam.
2. By the diversion of power (now exported to the States) to the Hydro Commission.
3. By the installation of a steam plant or steam plants.
4. By the purchase of existing plants.

As regards these, the first and fourth are under way by the Ontario Hydro Commission. The second involves a big question of policy and may readily become an international matter. The third involves heavy expense and increased charges, as the capital cost of a steam plant to-day would be in the neighborhood of $150 per kilowatt or about $110 per horse-power.

The committee think that the co-operation of every Hydro user, whether domestic or industrial, should be given to assist in conserving power and light, in every possible way, in order that an uninterrupted service may be maintained in the industries, until a further supply of power is obtained for the system.

Citizens' Research Institute

Dr. H. L. Brittain has conferred with the Toronto Branch Executive on the subject of a Dominion-wide organization of citizens, to be known as the Citizens' Research Institute of Canada, whose business it will be:—

1. To obtain, in an unbiased and non-partisan manner, the fact basis underlying the administration of the peoples' affairs in the Dominion, the Provinces and municipalities and of community interests in general.
2. Through the publication and discussion of such facts to create a well-informed citizenship.

It is thought that if such research organizations are necessary in a municipal field, there is a much greater need in the provincial and national field.

At present a very real unrest exists in the industrial, social and political phases of national life. The only way to remove this is to discover and remedy the causes. The institute, by obtaining, in an unbiased spirit of research, the pertinent facts in relation to the various phases of community life, and presenting them in a form easily assimilated by the people, should assist in promoting clear thinking and effective action in this connection.

The Institute will be governed by a Board of Trustees, who shall receive no remuneration, elected by and from the members at the annual meeting. No paid official of a Dominion, provincial or municipal government can hold the position of trustee. The Institute will be supported entirely by voluntary contributions.

The Executive Committee of Toronto Branch has, upon inquiry, endorsed the Institute and has promised to support Dr. Brittain in his new work. As Canadians, we are all vitally interested in efficient and economical administration in the local, provincial and Dominion field. The Executive has, therefore, arranged for a special conference with Dr. Brittain, with a view to determine the best means of making its endorsation effective.

Ontario Division's Work

By H. MACDONALD
Secretary, Ontario Division

A joint meeting of the Executive Committee and Transportation and Power Sub-Committee of the Ontario Division was held in the Royal Connaught Hotel, Hamilton, on January 28. Mr. George H. Douglas, chairman of the division, presided. The committee gave full consideration to the situation arising from the shortage of power and its serious effect upon many of the industries. After full discussion, taken part in by the chairman, Messrs. Waddie, Whitton and Coulter, it was resolved that a representative committee, on behalf of the Ontario industries, be organized to wait upon the Hydro Electric Power Commission on the return of Sir Adam Beck from England, to discuss the whole power situation in Ontario—the selection of the personnel of the committee being left in the hands of the Chairman and Secretary.

Employment of Returned Men

A joint meeting of the Executive Committee and Legislation Committee of the Ontario Division was held in the Association's offices on February 20th. Mr. George H. Douglas, Chairman of the Division, presided. Correspondence was submitted from the Business Council of the Citizens' Repatriation League, Toronto, referring to difficulties in connection with engaging disabled returned men on account of there being greater danger of these men meeting with an accident than in the case of a man without physical disability, and the placing thereby upon the employers the liability of heavy compensation under the Workmen's Compensation Act.

The opinion of the meeting was that there was no reason to assume that there had been any disposition on the part of employers to discriminate against any class of returned men, and they directed the Secretary to notify the Business Council that if special cases of complaint in this regard could be submitted, full inquiry would be made.

Moratorium Act

It appearing from the press reports that Attorney-General Raney had invited expressions of opinion on the question whether the moratorium legislation should be continued or repealed in Ontario, the Legislation Committee of the Ontario Division resolved to communicate to the Attorney-General an expression of opinion that repeal of the Moratorium Act should be delayed for six months after sufficient notice had been given.

Workmen's Compensation Act

The Legislation Committee of the Ontario Division have recently issued a questionnaire to employers in Ontario inviting an expression of their views as to the working out of the Act, whether generally or in relation to their particular plant. The Committee have fully considered the replies received and have referred the whole question to a special committee for further consideration and report, with special reference to recommending an adequate system of merit and demerit rating.

Who Goes to San Francisco?

By A. MARSHALL
Manager Commercial Intelligence Department

The Commercial Intelligence Committee have been invited to submit suggestions as to how best the invitation of the National Foreign Trade Council of the United States, tendered through the British Consul-General, to a representation of Canadiaa business men to attend the seventh National Foreign Trade Convention in San Francisco, may be availed of.

The National Foreign Trade Council of the United States is a non-partizan and non-political organization, devoted solely to the development of International Commerce. The Convention held under its auspices is primarily a gathering of the representatives of all phases of the international commerce of the United States, from all parts of the country, for the discussion and consideration by business men of the problems arising out of their daily transactions. Both the import trade and the export trade are fully dealt with.

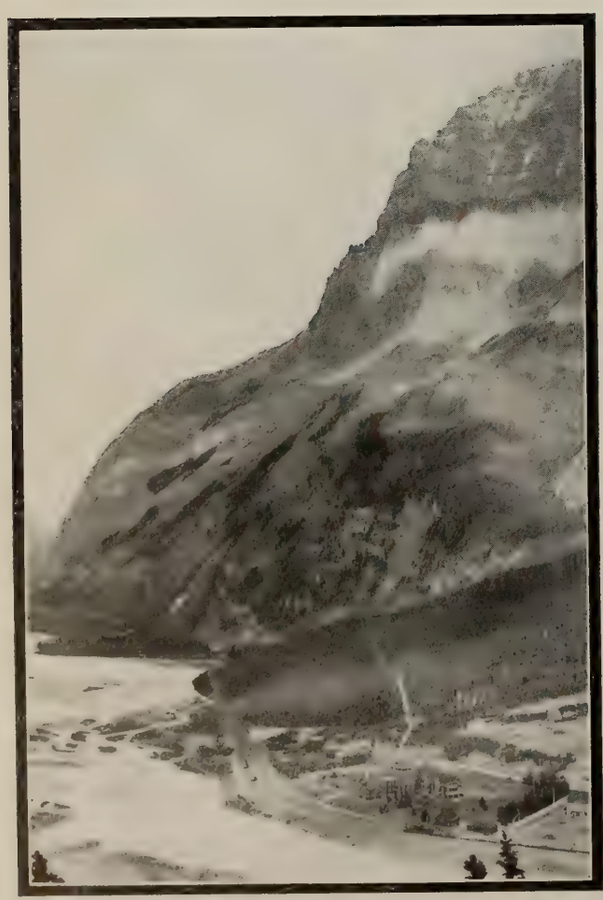
The Foreign Trade Council considers that it is reciprocally to the advantage of producers and distributors in foreign markets, as well as those of the United States, to meet at such a convention for the mutual interchange of views and information regarding market conditions, production, trade customs and regulations, and all matters affecting the flow of commerce between them.

At this convention it is proposed to make a new departure from the regular procedure by inviting, as delegates from other countries, experienced representatives engaged in the different phases of international commerce. In this connection, it is planned to arrange a series of group sessions for the special consideration of trade relations between the United States and other individual countries, as, for instance, a group session on Japan, one on China, one on Australia, and so on, the groups being composed of United States business men and the delegates from the particular country whose trade is under discussion.

It is decided that all the delegates are to be representative only of international commercial interests and not of the Governments, and it is desired that some of them will be equipped to meet United States delegates in individual private consultation, for the dissemination of information as to market conditions in the countries from which they come, and for the consideration of problems arising out of the particular trades concerned.

The Foreign Trade Council of the United States also wishes to point out the value of the opportunity this plan affords to the foreign delegations to meet at one time and in one place a large number of United States business men, representing every factor of United States production and distribution and every geographical section of the United States.

However, many individuals or trades may consider it desirable to interest themselves in the proper representation of the varied Canadian interests. Will those who are interested kindly communicate their suggestions to the Commercial Intelligence Committee at the Association address, 1404 Traders Bank Building, Toronto Ont?



In the Heart of the Rockies

View of the Kicking Horse River at Field, B.C., on the return route of the 1920 Annual Meeting Excursion

Annual Meeting Itinerary

Excursion to the Coast

The following is the itinerary which has been mapped out in connection with the Annual Meeting Excursion to the Pacific Coast. Members will note that the trip will consume practically three weeks, excursionists leaving Toronto on Saturday, May 29, and arriving back on Friday, June 18.

Via Canadian Pacific Railway

Lv. Toronto	10.00 p.m.	Saturday	May 29
Ar. Winnipeg	1.30 p.m.	Monday	May 31
Lv. Winnipeg	11.59 p.m.	Monday	May 31
Ar. Brandon	3.50 a.m.	Tuesday	June 1
Lv. Brandon	10.00 a.m.	Tuesday	June 1
Ar. Regina	4.30 p.m.	Tuesday	June 1
Lv. Regina	6.45 p.m.	Tuesday	June 1
Ar. Moose Jaw	7.55 p.m.	Tuesday	June 1
Lv. Moose Jaw	11.00 p.m.	Tuesday	June 1
Ar. Medicine Hat	8.00 a.m.	Wednesday	June 2
Lv. Medicine Hat	1.00 p.m.	Wednesday	June 2
Ar. Lethbridge	5.00 p.m.	Wednesday	June 2
Lv. Lethbridge	1.30 a.m.	Thursday	June 3
Ar. Calgary	7.00 a.m.	Thursday	June 3
Lv. Calgary	12.30 a.m.	Friday (approximate)	June 4
Ar. Edmonton	8.45 a.m.	Friday	June 4

Via Canadian National Railways

Lv. Edmonton	8.00 p.m.	Saturday (approximate)	June 5
Ar. Vancouver	7.00 a.m.	Monday (approximate)	June 7

Via Canadian Pacific Railway.

Lv. Vancouver	10.30 a.m.	Thursday (C.P.SS.)	June 10
Ar. Victoria	4.30 p.m.	Thursday	June 10
Lv. Victoria	2.30 p.m.	Friday	June 11
Ar. Vancouver	7.00 p.m.	Friday	June 11
Lv. Vancouver	8.30 p.m.	Friday	June 11
Ar. Lake Louise	8.45 p.m.	Saturday	June 12
Lv. Lake Louise	4.00 p.m.	Sunday	June 13
Ar. Banff	5.00 p.m.	Sunday	June 13
Lv. Banff	10.00 p.m.	Monday	June 14
Ar. Calgary	12.45 a.m.	Tuesday	June 15
Lv. Calgary	1.45 a.m.	Tuesday	June 15
Ar. Winnipeg	6.00 a.m.	Wednesday	June 16

Via Rail—Winnipeg to Toronto

Lv. Winnipeg	6.00 p.m.	Wednesday (C.P.R.)	June 16
Ar. Ft. William	7.00 a.m.	Thursday (C.P.R.)	June 17
Lv. Ft. William or Pt Arthur	3.00 p.m.	Thursday (C.P.R.)	June 17
Ar. Toronto	8.00 p.m.	Friday (C.P.R.)	June 18

Via Lake Route—Winnipeg to Toronto

Lv. Winnipeg	7.00 p.m.	Thursday (C.P.R.)	June 17
Ar. Ft. William	8.00 a.m.	Friday (C.P.R.)	June 18
Lv. Pt. Arthur	1.00 p.m.	Saturday (C.P.SS.)	June 19
Ar. Toronto	11.45 a.m.	Monday (C.P.R.)	June 21

The Situation and Outlook at Ottawa

The Question of an Election a subject of considerable importance at the present time—A Forecast of probable legislation at the present session—Appropriations to be cut down with great severity

By Industrial Canada's Parliamentary Correspondent

Realizing the great importance attaching to developments at the Capital, arrangements have been made for the publication each month during the present session of Parliament of an article interpreting events for the benefit of our readers. The first of these articles, written at the opening of the session, appears on this and the following page.

Ottawa.—The question of an election was obviously the matter of chief concern for all persons and parties at the opening of Parliament. This was natural, as preparations for general elections have been under way for some time.

When Hon. Mr. Crerar left the Government last session, he regarded his resignation as a first step in his campaign, and he followed that step by touring Canada on a speaking trip, organizing farmers in all parts of the country for the next voting contest.

He has figured in several of the bye-elections, and to-day finds himself in the House at the head of a group of twelve men who sit on what they designate as "cross benches" and vote independent of both parties, but are generally against the Government.

The Liberal National Convention of last summer was the great preparatory step of the Liberals for a general election. It has been followed by other details of party organizing, including the appointment of a capable man, in the person of Mr. John Lewis, to prepare campaign literature and generally to look after publicity.

Government Does Not Want Election

The Government, which does not want an election, has been forced to follow the lead of its opponents, and take measures for its defence. The evidence of this is that Hon. Mr. Meighen, Hon. Mr. Calder, Sir Henry Drayton, Hon. Mr. Rowell, and other spokesmen for the Government, have been taking the platform during the past six months, whenever opportunity offered, to promote the standing of the Government in the country by spoken word.

The Speech from the Throne contained the promise of a franchise act, which was necessary for an election, as the War Times Election Act could not be used. The passage of the franchise measure will make the holding of an election possible.

The first declaration of Hon. Mackenzie King at the opening of the session was that there should be a revision of the tariff, and he closed the speech with a demand for a general election, and emphasized the demand by an amendment to the Address, insisting that the enactment of the franchise bill be followed by an immediate appeal to the people.

But, in spite of all the campaign preparation, there is not likely to be a general election this year nor, indeed, until another session of Parliament has been held, and the constituencies of the country subjected to redistribution. Sir George Foster scoffed at the idea, and intimated that the Liberal leader was posing.

The Government does not want an election, and it is suspected that neither Hon. Mr. King nor Hon. Mr. Crerar want one as badly as they declare. Neither of them feels that his organization is what it should be, and Mr. Crerar, in particular, is in the difficult position of dealing with a most radical following. He would be glad to have the farmers, east and west, who want to make him Prime Minister without delay, have the opportunity of seeing how the Drury Government of Ontario, under the responsibility of administration, handles the questions that every Government has to deal with. The followers of Hon. Mr. King would be well satisfied to draw one or two more indemnities without placing their seats at the hazard of a general election.

Might Stay Until 1923

Therefore, the problem of the Government continuing in office may not be as difficult as it appears.

Under the constitution, the Government would be able to remain in office until 1923, providing it can continue to command a majority of the voting strength of the House. At present its majority is about fifty. Bye-elections have been running against it, and may continue to do so, but a fifty majority is a large one to overcome, and should last as long as the Government wants to keep the present Parliament alive.

The argument that there should be no election until after redistribution, is one that can be strongly used in support of the wide feeling throughout Canada, among the more responsible classes, that the country is not in a sufficiently settled mood to express itself at the polls as it would desire.

The decennial census of the country will be taken in June, 1921, and the constitution calls for redistribution of electoral ridings immediately after each census, and before an election is held. If urgent conditions require, there could be a special session in the early autumn of 1921, for the passage of a redistribution bill, and an election immediately thereafter, or as long afterward as the Government pleased, up to the statutory limitation of the spring of 1923.

Election Forecast for 1922

A fair forecast would be that the redistribution would come at the regular session of the winter of 1922, and the election in the autumn of the same year.

Parliament meets with the general feeling that the standing of the Government with the country is not strong; that feeling is shared by most of the ministers of the Government. But, there will be ample time for a considerable change of sentiment among the electors if no unexpected development brings on the election until 1922. Business will have time to improve, unrest to disappear; the business relationships of Canada with the United States, with Britain

and with the world generally, may be on a considerably different basis.

One has but to glance over the events since the last general election to form an idea of how fast the world moves and what may happen between now and the next voting day to change the minds of a majority of the electors.

In the matter of leadership, for instance, since the last election, the Liberals lost Sir Wilfrid Laurier through death and acquired Hon. Mackenzie King through convention. The Conservative party, of which Sir Robert Borden was the head, was submerged by that leader in the support of the Unionist Government, and Sir Robert wore himself out in work for his country and his Empire to such a point that it is doubtful if he will be able again to take the same forceful part in public affairs that he was accustomed to take for many years.

Development of Agrarian Movement

Since the last election there has been seen the development of the agrarian movement in politics, and the tacit selection of Hon. Mr. Crerar as head of the third party. Since that election the world has seen the end of the Great War, and the effect of the conclusion of strife was profoundly disturbing in Canada. So much so, that the constitutional system of the country was challenged by the leaders who brought on the strike at Winnipeg. Since that election Canada advanced in the status of a nation through being accorded the right to address its representations to the king direct, instead of through the British Government; the right to deal directly with Washington in matters of concern only to Canada and the United States; and, finally, recognition as a nation by the gift of a membership in the League of Nations. In the last election the franchise was extended to women for the first time, and they are now secure in the possession of voting power for federal elections. The application of Government ownership was extended to the Grand Trunk Railway, and Canada became the owner and operator of a fleet upon the Atlantic Ocean. The Dominion, which was forced to cease being a borrowing nation, has become a lending nation, through the extension of credits to European countries for the purchase of goods; the authority of organized labor has been considerably extended; the practice of making gifts of knighthoods and other honors to Canadians has been abolished. Finally, for the first time in the history of Canada, a province has made the experiment of departing from the party system in politics; has rejected the trained public man, who has been contemptuously called "the professional politician," and has elected a class to govern for the whole. This was done when the great and conservative province of Ontario turned down the Conservative Government and the Liberal opposition, and voted in the farmers, with authority to carry on Government. This is an experiment in administration, which is being closely watched by both friends and opponents of the movement, especially at Ottawa, where politics is something of a science—or, at least, a study—and where there are many seasoned observers who had long since come to the conclusion that the best administration was to be obtained from the man who made elections and administration his business.

However far the next election may be deferred, it is certain that the present session will be conducted on the assumption that an election may take place this year, and every move by every faction will be made with the view of strengthening itself with the country for the voting test.

The legislative programme of the Government, contained in the Speech from the Throne, is meagre in the extreme. The promise of a franchise measure is the only item worthy of note. But this must not lead to the conclusion that the legislative measures of the Government will not go beyond the programme in the Speech. It is the habit of Governments to reserve a good deal of their business until late in the session. Last year, for instance, a session called to ratify peace wound up by purchasing the Grand Trunk Railway.

Among members there is much interest taken in the significance of two events which have taken place elsewhere in the world, and which concern the nationalization of the public utilities of a nation. In the United States the railways, which were seized during the war, have been handed back to their owners by an administration which apparently found the problem too great and the deficits too heavy. The election of Hon. Mr. Asquith in Paisley is the second. There it is recognized that a man, who had the knowledge of administration which enabled him to discuss the question of nationalization with authority, gained from experience, went into a riding which was one of the industrial hives of the United Kingdom. The workmen were the electors, and they had been taught by the labor leaders that nationalization of industry was the goal to be aimed at. Hon. Mr. Asquith challenged the soundness of the Labor view, and succeeded in convincing the Labor electors of that riding that nationalization was not sound. His return is regarded at Ottawa as evidence that a good case, well fought, will make for success in Canada as well as in the Motherland. So we have the paradox of a Unionist Government in Canada being cheered by the election of a distinguished Liberal in Britain.

There is much concern as to the future of taxation, and as to what will be disclosed along this line when Sir Henry Drayton reveals the secret in the budget speech. One of the things which war did for Canada was to advance very considerably the application of direct taxation. The demands of the treasury are so great that there does not appear a likelihood of this being modified. The income tax is in Canada to stay.

Extension of Excise Tax

It is almost certain that there will be an extension of the excise tax, which has been applied to pianos ,automobiles, and other articles classed as luxuries. There is hardly a limit to which taxation may be extended in this way, and it may be found that the list will be so enlarged as to include a good many necessities, and to yield the Government a large measure of the revenue that it requires.

The Government proposes to set the example of economy to the country. Therefore, the appropriations will be cut down with great severity. Places that desire public buildings, communities that wish the improvement of harbors or other local works, the Canadian National Railways in the matter of extensions and betterments, and a thousand other applicants for funds from the Treasury, are likely to meet with disappointment when the estimates are tabled in Parliament. With its interest and pension bills, the Government has to economize, and it is determined to do so.

The greatest expenditure of a new kind is likely to be for the construction of more ships for the Canadian Government fleet. The tonnage of the world is short, and therein lies the difficulty of extending abroad the trade of Canada. The Government is convinced that ships are a good national investment at the present time, and is willing to spend the money necessary for their construction.

Legislation and discussion are two different things in

Parliament. It takes a bill, and usually one introduced by the Government, to become law. Discussion may be brought on by any member who can frame and move a resolution. Therefore, Parliament will hear much talk that is not intended to lead to any results other than to excite or attract the people in the country. The question of exchange, of the position of returned soldiers, of membership in the League of Nations, of further railway nationalization, of domestic commercial control either through the Board of Commerce or in some other way, of immigration, highway improvement and a hundred other things, are likely to be discussed.

The question of Government is certain to be brought under review; and there will be any amount of tariff discussion.

Changes in the Trade Mission in London

OVERSEAS' BRANCH FORMED

THE Trade Mission in London during 1919, under the presidency of Mr. Lloyd Harris, carried on a successful work in Great Britain, and was instrumental in making large sales of Canadian products to that and other European countries, aided thereto materially by various credits granted by the Canadian Government. The Commission was designed to fill an emergency and was never intended to operate permanently on the basis laid down for its temporary activities.

The credits given last year fell in at the end of the year, and unless, and as renewed, that factor will hereafter be absent. In order to provide for the expenses of the Mission, whose chief business was to procure contracts for Canadian producers, supervise them and distribute them in Canada, and to facilitate and supervise delivery to European purchasers, a small commission was charged to the parties receiving the contracts. This feature will also disappear, being in fact inadvisable and impracticable on the part of a Government in the normal processes of purchase and sale.

Now Branch of Department

In the place of the Special Trade Commission, a branch of the Department of Trade and Commerce has been constituted in London, to be known as the Overseas Branch, Department of Trade and Commerce, Canada, under the direction of Mr. W. C. Noxon, who was chief assistant under Mr. Harris, and who has had the benefit of last year's operations and activities in Europe, and who has, besides, an intimate knowledge and intimate experience of trade and industrial conditions in Canada.

With Mr. Noxon will be associated Mr. Harrison Watson, Chief Trade Commissioner in the United Kingdom, who, with his associated Trade Commissioners, will co-ordinate their work with the Overseas Branch. A sufficient staff will be provided to carry on the work along the lines of commercial intelligence, shipping, publicity, and transport. The offices will be those formerly occupied by the Trade Commission—The British Columbia Building, 1 Lower Regent St.

The Trade Intelligence Branch will, through Mr. Harrison Watson, keep in close touch with the Canadian Trade Commission in the United Kingdom, and on the continent, and will receive and transmit commercial information, and so link up with the London headquarters the activities of the whole body of Canadian Commissioners in Europe. This will give a network of trained and intelligent men in the United Kingdom, France, Holland, and Belgium, Italy, Greece, Spain, Poland, Czecho, Slovakia, Servia and Southern Russia—all connected with London Overseas Headquarters and working in strict co-operation therewith.

The Overseas Branch will have the advantage of close and constant touch with the High Commissioner in London, who will be the medium and advisor in all official and governmental communications with the departments of the Government in London, with the official commercial representatives of the various Governments represented in London, and the High Commissioners and representatives of the Overseas Dominions, India and the Dependencies.

Aims of Overseas Branch

It will not be the duty of the Overseas Branch to make sales or purchases or negotiate contracts for individuals or corporations. This must be left to their own representation and effort.

It will be the aim, through the Overseas Branch:

1. To provide a convenient commercial meeting place for Canadians visiting London for business purposes, where they will be made welcome, and can find men ready and willing to give them advice and information.
2. To have at hand full and pertinent information as to the conditions of trade, openings for business, demands for Canadian supplies, and possible contracts; to facilitate conferences with business firms, manage introductions to business houses, and in every legitimate way aid Canadians to extend trade.
3. Conversely, the Overseas Branch will be a Canadian bureau of business information as to Canadian products, where persons desirous of doing business with Canadians may find ready answers, careful directions, and sound, reliable counsel.
4. To give reasonable and uniform publicity to Canadian resources and productions and opportunities.
5. To establish a wide-awake and efficient commercial liaison office between Canadian producers and world buyers in the great mart of London, and to that end the Overseas Commercial Branch in London will keep in close touch with the Commercial Intelligence Branch of the Department of Trade and Commerce in Ottawa.

The activities of the Canadian Trade Commissioners, as outlined above, in co-operation with the London Headquarters, will not interfere with the system hitherto pursued of constant communications with the Department of Trade and Commerce at Ottawa and the business men of Canada.

Scholarships at McGill

Canadian Pacific Railway Company Make Offer to Employees and Sons of Employees

The Canadian Pacific Railway Company are offering a free scholarship, covering four years' tuition in architecture, chemistry, civil, mechanical or electrical engineering at McGill University, subject to competitive examination, to apprentices and other employees enrolled on the permanent staff of the company and under twenty-one years of age, and to minor sons of employees. The competitive examination will be held at various centres in June. Scholarships will be renewed from year to year, to cover a period not exceeding four years.

The Press Condemns Business Profits Tax

Newspapers of Canada Enumerate Many Reasons Why Tax Should Not Be Re-imposed—It Impedes Business, Interrupts the Flow and Employment of Capital and Operates to Dry Up the Source Whence It Is Derived

(A Symposium of Editorial Views)

IN the opinion of many of the most influential newspapers in Canada, the business profits war tax should not be reimposed by Parliament. The serious effect which its imposition has had on the progress of industry is emphasized, while arguments are also levelled at the inadequacy of the tax to meet the needs of the situation. A number of excerpts from the editorial pages of the Canadian press, bearing on this important question, are reproduced, in order to show the attitude of the press towards the subject.

THE EXCESS PROFITS TAX

(Kingston Standard, Jan. 23, 1920)

The question of the excess profits tax will have to be considered at the coming session of Parliament, and it will prove to be rather a difficult one. There is a danger to the public which cannot be altogether disregarded, which has been pointed out as affecting it in the States, and which, of course, applies as much in Canada. It has been well stated by Mr. M. F. Frey, the well-known American Tax Consultant, when he says that a manufacturer, merchant, or other business concern, subject to the tax, in most instances, estimates in advance the amount which he is compelled to add to the selling price of the commodity, in order to pass the same on to the ultimate consumer, so as to protect himself against the heavy imposition. Because of the uncertainty and complexities of the law, a business concern is apt to overestimate, rather than underestimate, its liability. In doing this, it often becomes an unintentional profiteer, in safeguarding itself from an undue usurpation of its earnings. Thus, prices are increased to the consumer by amounts more than sufficient to cover the tax.

It may be remembered that this has been pointed out in Canada, and it will have to be considered when the tax comes up for discussion in Parliament.

SHACKLES ON CAPITAL

(Montreal Financial Times, Jan. 24, 1920)

When Hon. Arthur Meighen, in a speech to the Shoe Manufacturers' Association, almost within one breath emphasized the need of increased production, insisted that manufacturers must be taxed to the limit, and hinted at a revision of the tariff which would remove some of the protection now afforded Canadian industries, he was uttering self-contradictions. The necessity for more production has been voiced by the very highest Governmental authorities and the greatest financial and industrial experts of the nation, but increased production implies the employment of increased capital, and that is not likely to be forthcoming if, on the one hand, it is exposed to a scale of taxation which approaches confiscation, and, on the other, to a devastating competition from outside. Hon. Mr. Meighen recapitulated the scale of the income taxes in force in Canada, which increases rapidly in ratio as the incomes reach higher figures, so that while a man with $20,000 income pays practically ten per cent., the possessor of a $100,000 income pays nearly one-third to the Government, while from a $100,000,000 income virtually two-thirds is taken. Quite oppositely, the Montreal *Gazette*, in the same issue in which Hon. Mr. Meighen's speech is reported, has this to say of the business profits and income taxes:

"The fault of a business profits tax is that it impedes business, interrupts the flow and employment of capital, operates to dry up the source whence it is derived. The Government must have revenue, to obtain which it should encourage the use of capital and assist the enlargement of business—not quench either at their source. An income tax is proper, and is not a new thing. From the profits of business income will be produced, upon which taxes can be levied, and it seems a mistaken policy to obstruct the flow of profits upon which the public revenue is now largely based in the form of income taxation."

BUSINESS PROFITS TAX

(Quebec Telegraph, Feb. 13, 1920)

There is considerable diversity of opinion in regard to the desirability of renewing the Business Profits Tax, and for this reason the coming budget at Ottawa is somewhat anxiously awaited. On the one hand, there are those of the Premier Drury school of politics, who would like to see all taxes paid by the "plutocrats," as he calls them. The opposition to the business profits tax is largely based upon the fact that it applies only to concerns employing more than a specified capital, permitting concerns of smaller capitalization to escape. Then, again, it applies only to certain kinds of industrial undertakings—agricultural enterprise, for example, being exempt. Large professional incomes also escape, while the business man, who takes a risk and succeeds, is taxed according to his success; while the professional man, who takes no risk, escapes everything but the income tax. Then, again, if the manufacturer has a bad year, he must bear the loss himself. On the other hand, if the following year is a good one, the Government takes the excess profit, refusing to allow any portion of it to be employed in evening up on the loss previously sustained. In illustration of these claims, a number of instances are given by some of our contemporaries. For instance, there is the case of a shoe factory which had offers of orders far in excess of the company's capacity. Early in 1919 full preparations were made for extension of the plant, including purchase of site, preparation of architects' plans, and arrangements for financing building. Then came the renewal of the Business Profits Tax, and immediately all extension was stopped. Another case is that of a leather tannery. The total output is easily sold, and export orders are being refused. The company is in a position to expand, and intends doing so as soon as the Business Profits Tax is definitely dropped—but not before. Manufacturers contend that they are justified in basing all plans for expansion of business upon the attitude of the Government in the matter of the Business Profits Tax, which has a tendency to drive Canadian capital to seek other countries for investment, and also to prevent foreign capital from coming to Canada. There is doubtless something to be said on both sides of this question.

THE PUBLIC PAYS

(Simcoe Reformer, Feb. 12, 1920)

A large part of the population imagines, says the New York *Sun*, that the one tax the public doesn't pay is the excess profits tax. It pays it all. It pays it several times over. Worst of all, because of the economic consequences of such a tax, it will go on paying it long after the Government ceases to collect it. The public pays the excess profits tax in the added prices passed along to the consumers by the industries and businesses assessed for the tax. The public pays more than the actual tax in the waste and squander to which such industries and businesses are encouraged by the excess profits measure. The public pays still more in the reckless management and demoralized working forces, which slow down production which, if it went beyond a certain point, would go into taxes. The public pays it again in the stronger and stronger demand, as expressed in currency inflation, upon a smaller and smaller supply under that slackened production induced by

the excess profits tax. And the living cost effects of this habitual inefficiency will continue for a long time. But millions of simple-minded citizens were never surer of anything than that they do not pay the profits taxes collected from richly-earning industries and businesses. They never were surer of anything than that if the excess profits taxes were taken off those opulent industries and businesses, other taxes wider and deeper, heavier and more heart-breaking, would be applied upon the people's aching backs.

BUSINESS PROFITS TAX

(Cobalt Nugget, Feb. 5, 1920)

The Business Profits Tax expired on the 31st of December last, and at the coming session of the Dominion Parliament there will in all probability be some changes made in the Act. At all events, it would seem to be only equitable that the needed revenue should be obtained in a manner that would bear more evenly upon the people. There is no reason why one class of citizen should bear a proportionately heavier burden of taxation than other classes in the same country.

The Government will have to provide ways and means for raising a much greater revenue in the years to come, and every fair-minded citizen will agree that this is necessary, but it is to be hoped that some method will be found to distribute the burden as equally as possible.

A case has been quoted of a member of a firm of manufacturers whose tax for 1918 was nearly four times that of his neighbor, enjoying the same income from a profession. It is cases of inequitable taxation such as this that are responsible for the development of criticism. Not that a business man objects to being taxed, but it is obviously unfair that his neighbor, receiving as great an income through some other source, should be allowed to get off practically scot-free from his financial responsibilities to the country.

Industry has already many handicaps, and the careful student knows that the life of the country now depends upon production, so that any further impediment would be a serious thing for the country as a whole.

THE BUSINESS PROFITS TAX

(Vancouver Sun, Feb. 10, 1920)

In the coming session of the Dominion House the Government and the country will come to grips with the taxation question. The problem of raising the large revenue which will be required in the next financial year is one to tax the ingenuity of the Finance Minister, and, perhaps, the patience of the taxpayer, to the utmost. Every kind of fiscal expedient will be canvassed, and to the discussions, in Parliament and outside it, every variety of interest and opinion will contribute.

To the nature and effects of the Business Profits Tax considerable attention is already being paid. In some quarters its repeal is demanded. It is described as inequitable, unwise and as an incentive to concealment of profits and overcapitalization. In war time, fiscal measures can be resorted to which cannot be justified or maintained in peace time, and there is no doubt that a strong case can be made out against the Business Profits Tax as a permanent fiscal instrument.

In the normal course, the profits of businesses will be distributed as dividends. The incomes of the individuals participating will thereby be increased. To tax profits before their distribution is, therefore, to alter the incidence of the income tax. The small shareholder ordinarily pays less income tax proportionately than the wealthy one, because his total income is smaller and the tax is steeply graduated. He is placed at a disadvantage when the dividends of both are taxed equally before distribution. And in all such cases there is an element of double taxation which is absent in regard to other forms of income not derived from dividends.

The known methods by which the Business Profits Tax is evaded will be increasingly resorted to, and will be supplemented by new expedients as the country gets further and further from war conditions. And it is difficult to discern why business profits should be subject to double taxation. This they must be, unless the Business Profits Tax is made simply a device for taxing incomes from business at the source. In that case the tax would be deducted from the amount of income tax payable by the individual shareholder or partner. But until that is done, there will be double taxation.

The only justification for the Business Profits Tax is the fear that excess profits will be wrung out of the people under existing economic conditions. That fear has some justification, though competition will inevitably destroy the ability to earn excessive profits, as normal business conditions return. The danger can be removed, however, by legislation controlling the purely financial operations of companies and corporations. The watering of stock, bonusing, and the creation of unnecessary contingency and reserve funds, for example, can be checked. Apart from the provision of proper reserves, all the profits of businesses ought to be distributed annually as dividends upon stocks and shares representing the real capitalization of the particular undertaking. When this course is pursued, the graduated income tax will do all that can justifiably be done by a Business Profits Tax.

This view of the problem should be fully considered by the House of Commons when the question of continuing or abolishing the Business Profits Tax comes before it. But its abolition, which is the logical outcome of the argument, must be accompanied by legislation to ensure the distribution of all profits over and above those reasonably required to ensure the stability of the business concerned by means of adequate reserves.

BUSINESS PROFITS TAX

(Montreal Gazette, Jan. 22, 1920)

The Business Profits Tax does not run beyond the year recently ended, unless Parliament revises the impost, and this method of taxation will, presumably, engage the serious consideration of the Finance Minister. The obligations of the Federal Government do not permit of reduction of taxation. Every dollar turned into the treasury is required to discharge debts due annually, and the people of Canada will be lucky if they escape further taxation to make ends meet. The problem confronting the Finance Minister is, however, not merely one of raising adequate revenue, but equally important is the question how to raise it. Before the war receipts from customs and excise duties, supplemented by revenue from the post office and public works, sufficed to meet expenditure with a frequent balance to the good; but the immense debt created by war activities, and the very considerable enlargement of staffs in Ottawa, have made necessary new taxation. In seeking sources of revenue the Government, as all governments do, resorted to an income tax, which people bear more or less contentedly, and also to a Business Profits Tax, and it is in respect of the perpetuation of the latter that controversy arises.

Business Profits Tax is not a wise tax. It may be justified as an emergency measure, but should not be carried into peace times. That is the opinion of respected critics. The United States is about to abolish the impost, and in matters of business the Americans are not slacking. The late Finance Minister, Sir Thomas White, regarded the tax with misgiving, as his remarks in his last Budget speech clearly showed. "Our business profits taxation," he said, "unless repealed as soon as war conditions terminate, must have an adverse influence upon the investment of money in business enterprise in Canada. Within bounds, such a policy is not open to criticism, but, carried beyond a reasonable point, it can only defeat its purpose, with consequences detrimental to capital, labor, and the community, as a whole." The conclusive objection to a Business Profits Tax is that it smothers business, capital is discouraged, enterprise is checked, and a premium is given to the divergence of profits to other ends than the public revenue. Mr. W. B. Colver, a United States Trade Commissioner, had this to say of the tax in a recent address to the Wholesale Dry Goods Association of that country:

"The Excess Profits Tax is passed on and multiplied until about four or five dollars is taken out of your pocket, my pocket and the pocket of the man on the street for every dollar that finally gets to the public treasury. The tax is difficult and cumbersome to collect, and bears inequitably upon different concerns of the same size and profitableness. As a matter of fact, it is a bonus for inflated capitalization and a penalty on conservative capitalization. It should be repealed at the earliest possible moment, and its repeal, I am certain, will result in an almost immediate lowering of the whole unhealthy price structure, which is

a burden alike to every citizen, whether he be consumer, merchandizer, producer or taxpayer."

The fault of a Business Profits Tax is that it impedes business, interrupts the flow and employment of capital, operates to dry up the source whence it is derived. The Government must have revenue, to obtain which it should encourage the use of capital and assist the enlargement of business—not quench either at their source. An income tax is proper, and is not a new thing. From the profits of business income will be produced, upon which taxes can be levied, and it seems a mistaken policy to obstruct the flow of profits upon which the public revenue is now largely based in the form of income taxation.

HIGH PRICES AND TAXES

(Charlottetown Guardian, Feb. 12, 1920)

Many and diverse are the views being expressed regarding the fall in the rate of exchange and on the high cost of living. When all is said and repeated, there is but one single explanation and one single remedy. For nearly five years Britain and the British Empire have been living on borrowed money—money that was used, not for production, but for destruction. To replace this destroyed capital, the gold standard was temporarily removed and a paper currency substituted. This was not done by legal enactment, but the Government permitted a larger percentage of paper circulation than authorized by the respective Bank Acts.

The money thus borrowed and expended must be made good, and the only way to replace it is by increasing production and selling the surplus to foreign nations. From the surplus produced revenue may be derived, in the form of taxation, for the maintenance of government. The first step towards the re-establishment of the gold standard and a sound rate of exchange is the curtailment of Government expenditure and the making of Government revenue and expenditure meet. The distribution of Government funds in the form of bureaus, unemployment relief and such like, tends to enhance the difficulties of the situation. Money given for doing nothing, or next to nothing, is the worst form of economics. Only productive expenditure helps a nation, and not until we get back to the pre-war state of every man being supposed to earn his living by the sweat of his brow or the genius of his mind, can we hope to re-establish finances on a sound basis and reduce the high cost of living.

In the stress and strain of war recourse has been had to the taxation of capital, and by capital we mean the money invested in business. This has taken the form of excess profits tax, and now "taxation that falls on the income from capital tends to check both the accumulation and the employment of capital. Of course, under certain conditions (such as prevailed in some, and perhaps most, industries in the present war), there may be large elements due to partial monopoly or exceptional demand. There may be what economists call quasi-rents, and, as Adam Smith observed, the gains of monopolists, whenever they can be come at, are, of all subjects, the most proper for taxation."

But if the special taxation strikes at the fair reward of enterprise and management, then both the amount and the productiveness of the national capital are injured. A similar argument applies to labor, but as the tendency is to make labor tax free, this may not be taken into consideration—except to note that the taxation on capital will indirectly affect the wages of labor and so far tend to lessen the productive power. It is the duty, therefore, of the Government to remove as speedily as possible restraints to production, and to begin to economize, in order to make revenue and expenditure meet; for thereby will the first step be taken towards stabilizing exchange and reducing the high cost of living.

THE PROFITS TAX

(Quebec Le Soleil, Feb. 19, 1920, translated)

We are wondering at the present time if the profits tax should be abolished or maintained, and the partisans of both opinions bring strong arguments to the discussion.

Those who wish the tax maintained show us the disastrous condition of our finances and the country's pressing need for revenue. They hold that if this tax were abolished, millions, becoming more and more necessary to the country, would be lost; and the partisans of the tax also wish that the public treasury benefit from the profits realized by the large industries; it is a contribution by the *nouveaux riches* to the work of improving our country's finances.

On the other hand, those who wish the tax abolished claim that it is prejudicial to industry; that it checks the investment of capital at home; and, finally, that in many cases it is illusory.

As we see, there are very good reasons on both sides.

In the ordinary course of things, it seems to us that we would favor the abolition of the tax, for we have had occasion to ascertain ourselves that it does not benefit the public treasury, because industrial promoters, in large numbers, have found means of avoiding it; because it can in reality injure industry and prevent foreign capital from coming our way.

It is an open secret that there are a number of industries with small capital which this tax does not reach. Slander goes so far as to say that some large industrial concerns have succeeded in avoiding it by forming sub-companies with limited capital. From this source, then, there is little to be gained from the tax in the way of improving our finances.

Moreover, it checks industrial expansion. It is affirmed that there is only one way by which Canada can free herself more and more from her obligations and establish normal exchange conditions, namely, by intensive production. Now, in order to do this, the number of factories must be increased; more factories, however, require considerable expenditure, for materials and labor are very dear, and what will it be when there is a profits tax to pay besides? Thus it is better to be content with what we have, and let fate do the rest.

We must rather find some means to give a fresh impulse to our industries; this would be attained by the attraction of foreign capital, but it is to be feared that capital will not come where a tax awaits it.

"We should therefore," say the opponents of the tax, "abolish it, because in many cases it is not paid, because it will harm our industrial expansion, and because it will discourage capital."

"But," will retort those in favor of the tax, "where will you get the revenue which this tax brought in?"

"Well," is the reply, "we will get it from the big incomes of individuals and from the *nouveaux riches*."

"At the present time it is a surprising thing that the small taxpayer, the small salaried man, for $2,000 is a small salary now, cannot escape the income tax, and the big millionaires do.

"The difference is that the small taxpayer has no means of escaping it, while the wealthy man succeeds in this by investing his money in industry. Now, if it has been a bad year, the Government gets nothing from the industry which has benefited by this capital, and then there are always ways of drawing up a balance sheet which will not show excessive profits; there is the item of depreciation and the increase in the cost of labor; there are several ways, and the fact is that industries get off easily.

"But the individual must declare his annual income accurately, and it is he who will have to pay."

Le Soleil is very much interested in this debate, and the coming session will undoubtedly see it under discussion in Parliament.

INCOME AND PROFITS TAXES

(Ottawa Journal, Dec. 4, 1919)

President Wilson, in his message to the United States Congress, makes a reference to taxes on incomes and business profits which is likely to arouse conflicting feelings. He thinks that the war scale of these taxes in the United States, which has been high, is unnecessarily and unwisely high now that peace conditions are restored; and he suggests lower rates as a matter of commercial and industrial wisdom. This view will be welcome to people who pay much of such taxes, and objectionable to people who pay little or nothing of them, and think that "the plutocrats," as Premier Drury calls them, should be "soaked" to the limit.

President Wilson may be right or wrong, but we have the idea that he is only half right at best. A sharp distinction exists between an income tax and a profits tax as regards effect upon the welfare of the community. President Wilson ought not to mix up the two in either a joint

(*Continued on page* 128)

Works Councils in the United States

An Illuminating Report on the Organization of These Councils, with Results Achieved to Date—Two Main Types Have Been Organized—Conclusions Reached Set Forth Concisely in a Carefully Prepared Summary

By J. T. STIRRETT
General Secretary, C.M.A., Toronto

The National Industrial Conference Board of the United States has issued a report on "Works Councils in the United States." (Research Report No. 21). INDUSTRIAL CANADA has made an arrangement with the Board to republish the following summary of this valuable report. Members who wish to secure a complete copy may do so on application to the National Industrial Conference Board, 15 Beacon Street, Boston, Mass. Price of the report is $1.50.

BEFORE proceeding with the study of this report, it is advisable to recall the fact that the subject of Industrial Councils was discussed very fully at the National Industrial Conference held in Ottawa, September 15-20, 1919. A special committee of the Conference composed of representatives of employers, employees, and the public, was appointed to bring in a report on this subject. The members of the committee were unanimous on their finding, and submitted the following report, which was also adopted unanimously by the Conference:—

"Your committee is of the opinion that there is urgent necessity for greater co-operation between employer and employee. We believe that this co-operation can be furthered by the establishment of Joint Industrial Councils. Your committee does not believe it is wise or expedient to recommend any set plan for such councils.

"We therefore, recommend that a Bureau should be established by the Department of Labor of the Federal Government to gather data and furnish information whenever requested by employers and employees or organizations of employers or employees, that whenever it is desired to voluntarily establish such councils, the fullest assistance should be given by the Bureau."

Definition of Works Councils

In the introduction to the report, "Works Councils in the United States," the Works Council is described as "a form of industrial organization, under which the employees of an individual establishment, through representatives chosen by and from among themselves, share collectively in the adjustment of employment conditions in that establishment. The Works Council is intended as one means of satisfying the desire of the worker for a share in the adjustment of his work conditions; as a means of lessening labor difficulties, of allaying industrial unrest, of increasing productive efficiency; and as an opportunity for informing employees on production, technical and economic questions. It provides, in the individual establishment, an organized form of contact between the employer and his employees."

The report is conservative in its character. It finds that as a rule, the establishment of Works Councils has resulted in the election of conservative and intelligent representatives of employees. It also states that, on the whole, the Works Council has promoted a better spirit between management and men. It point out, however, that the Works Council is, in itself, not a cure for industrial troubles, but simply provides one kind of machinery for the adjustment of problems.

The report draws a very clear indication in regard to collective bargaining, as follows:—

"Under a plan of employee representation, questions previously settled between the employer and his employees individually are handled by representatives of the employees collectively, and, moreover, on a systematic basis. Recognition of the principle of collective dealing by the employees of an individual establishment with their employer forms the very basis of the Works Council. Such collective dealing is, however, distinct from 'collective bargaining' in the sense of collective dealing with labor unions as organizations."

This means that the individual plant is the unit for negotiation between employer and employees.

Works Councils and Trade Unions

In regard to the relationship between the Works Council and trade unions the report says:—

"The Works Council, however, is not in its essence a substitute or an alternative for labor union organization. In recognition of this fact, some notable plans of employee representation expressly provide that employees shall not be discriminated against because of labor union membership. While the Works Council tends to restrict the activity of the labor union in matters purely local to the individual establishment, the union may still be potent in settling problems common to the entire craft, industry or locality."

In dealing with the distribution of Works Councils with respect to the extent of trade unionism in plants where Works Councils have been organized, the report says:—

"Of 81 establishments from which information was secured on this point, 71 reported that they maintained 'open shops,' while in three others one or more departments were conducted on the 'open shop' basis. Two were 'closed non-union shops' and another was nominally a 'closed non-union shop.' A 'closed shop' is also maintained by the 'company union' or a public service company. Two firms stated that while their establishments are nominally 'open shops,' they are practically 'closed union shops'; one is a 'preferential union shop.'

"Not all of the reports received give adequate information on the extent to which shops are unionized. Of those giving definite information, 10 reported that 90 p.c. or more of their employees belong to trade unions, three put the figures at 80 to 90 p.c., three at 70 to 80 p.c., two at 60 to 70 p.c., and eight at 50 to 60 p.c.; four reported 20 to 30 p.c. of trade union members among their employees, and 22 reported less than 10 p.c. Eight reported that they had no union members among their employees.

"Of the 26 establishments in which 50 p.c. or more of the workers were union members, 22 were engaged either in shipbuilding or in some branch of the metal trades. Of the 10 establishments unionized 90 p.c. or more, all but two were in these industries."

One Fundamental Feature

Two main types of Works Councils have been organized in the United States up-to-date, although in one fundamental feature the organization of all Works Councils is the same, viz.: Each is a representative body chosen by and from among the employees of an individual establishment. The various kinds of Works Councils, however, fall into two main



All Departments Are Represented

Works Council at Hamilton Works of International Harvester Company

divisions, first, the Government type, and second, the committee type.

The government type follows the pattern of the United States Government, and provides for a Cabinet, Senate, and House of Representatives. This is often referred to as the "Industrial Democracy Plan." The Cabinet consists of the membership of the higher executives of the plant. The Senate is made up of foremen. The House of Representatives consists of the elected representatives of the employees. In one factory the Senate, as well as the House of Representatives, is composed of representatives elected by the employees.

The committee type follows the ordinary committee form of organization, sometimes being a single committee, sometimes a number of committees.

It is apparent that the Works Council is still in the experimental stage, and in comparison with the number of plants in the United States, the Works Councils in operation represent a small percentage of the total factories of the country.

The conclusions reached in this lengthy report are very concisely set forth in a general summary, which is printed in full as follows:—

VII—General Summary

"The facts with reference to Works Councils in the United States, as set forth in the preceding portions of this report, are summarized in this chapter. The evidence assembled in the course of the investigation also suggests certain conclusions with regard to specific features of this industrial development. The latter, which are based upon impartial judgment of the facts disclosed by the investigation, are here presented without prejudice as to the desirability or undesirability of establishing Works Councils.

"Works Councils are a relatively recent development in industrial organization. Although proceeding from forces long active—a desire on the part of the employer to establish a more intimate contact with his employees, on the one hand, and a desire on the part of the workers for effective representation of their interests, on the other—the first known example of a Works Council in the United States dates back only to 1904. Up to January, 1918, only 29 such organizations had been formed, so that practically all existing Works Councils were established during a period of 18 months. Their rapid increase in number during this period is to be attributed mainly to the activity of the National War Labor Board and the Shipbuilding Labor Adjustment Board and to abnormal war-time conditions.

"The number of Works Councils disclosed by this report —approximately 225 in 176 companies—is, of course, relatively small compared with the total number of industrial establishments in the United States. Their development, while significant, must therefore be regarded as in an experimental stage.

Most Councils Among Metal Trades

"The largest number of these Works Councils are found in the various branches of the metal trades and the next largest in the shipbuilding industry. Practically all of them are located in the states east of the Mississippi River. They exist under a wide variety of conditions. While often found in small establishments, by far the greater number of them are in large establishments employing a high proportion of skilled and of English-speaking workers. With respect to the degree of unionization among employees, establishments with Works Councils are about evenly divided between those in which a majority of the employees are unionized and those in which only a small proportion or none are union members. Practically all establishments having Works Councils are 'open shops.'

"By far the majority of Works Councils are of the 'committee' type, as distinguished from the 'governmental' type modelled after our system of Federal Government. Of the total of 225 Works Councils considered in this report, only eight are of the latter type.

"While a choice between the 'governmental' and the 'committee' types of organization is largely a matter of personal

preference, experience indicates that the 'committee' type in general is the more desirable because of its greater flexibility. In large establishments, in particular, the 'governmental' type has the disadvantage that in order to be properly representative of the employees it must necessarily be so large as to be unwieldy. Also all questions, however trivial or local, arising in any part of the plant must be referred to the House or Senate, and thereby become the concern of the whole plant. These difficulties are avoidable in the 'committee' type of organization, since it permits of the development of divisional committees in the smaller units of the plant.

Advantages of the Joint Form

"As between the separate and joint form of Works Council, the latter appears to have some advantages. The Joint Works Council, composed of an equal number of representatives of the employees and of the management, tends to develop in both a sense of their mutuality of interest. As a result, its activities are more likely to be of a co-operative and constructive nature. Obviously, agreement between the parties should be facilitated by reason of the fact that the representatives of both, sitting as members of the same body, hear the full facts concerning matters under discussion before they are required to take a position. A special provision authorizing either set of representatives to meet separately may, however, be desirable, since an opportunity for either group of representatives to talk over a matter among themselves, following joint discussion, may often facilitate a settlement. Moreover, such a provision preserves the separate entity of the two parties where their interests may be in conflict.

"With respect to their constitutions, the Works Councils reported upon are about evenly divided between single Works Councils and Works Councils based upon divisional committees. The former are found mainly in small plants; where single Councils exist in large plants, the establishment is generally subdivided into voting divisions for the purpose of electing the members. Works Councils of the second class, that is, those which comprise not only a general committee for the plant, but also smaller representative units, such as departmental, divisional, shop or craft committees, are characteristic, by contrast, of relatively large establishments.

"The latter form of organization has been found especially advantageous in large establishments, where, in order that all interests among the employees may be properly represented, a single Works Council would be too large for effective work. In this connection it is to be noted that Works Councils are generally effective in actual operation to the extent that they embrace the various elements among the employees.

"It has been found necessary to determine for each establishment individually the divisions in which Councils are to be set up, the only basis capable of general application being that such divisions should be natural units of the plant. The working direction, the number of employees, their occupation, their proximity at work, and other considerations have to be taken into account.

"The employee members of the divisional committees are chosen, of course, by the employees in their respective divisions. The employee members of the General Works Council may be chosen by the employees of the plant as a whole or by the divisional committees, or they may be selected from the divisional committees.

The Management's Representation

"While foremen, rate-fixers, division superintendents, and other minor executives may represent the management on the divisional committees, the management's representatives on the General Works Council are ordinarily high executives of the establishment.

"In their procedure practically all Works Council plans prescribe that an adjustment be attempted with the foremen,

(*Continued on page* 103)



The Round Table Idea in Operation

Works Council of the Massey-Harris Co., Limited, Toronto, in session

More Information Needed on Export Trade

While a Great Deal of Valuable Data Has Already Been Compiled there is Urgent Need for More—Members Who Have Not Already Furnished Particulars Are Urged to Fill in the Questionnaire Below

By ALEX. MARSHALL

Manager, Commercial Intelligence Department, C.M.A.

ONE of the most important functions of the Commercial Intelligence Department of the Association in the past has been the interviewing of an almost constant stream of visitors from Great Britain, the Overseas Dominions, India, France, Belgium, Scandinavian countries, the Balkans, Greece, South America, the West Indies, and other countries. Many of these visitors are import commission agents, merchants and import contractors, generally coming well introduced and bearing first-class references as to ability, integrity and responsibility. Besides these well equipped and well established business men of countries other than our own we have frequent calls from successful Canadian salesmen, returned officers and others, who have some adaptability for and, in some cases, past success in selling various commodities in different export markets.

It has been our privilege and pleasure to put many of these men in touch with Canadian manufacturers who were known to be interested in export trade, as well as to assist reputable Canadian export commission houses in seeking business from our members.

After consultation with many disinterested authorities on export trade, and at the request of the Commercial Intelligence Committee, this article has been prepared to get the serious consideration of the members of the Association as to the desirability of carrying out this work in a more thorough and more systematic way than has heretofore been possible with the information at our disposal.

Naturally, no attempt is ever made to interfere in any way with arrangements already made by our members for their representation or other methods of sale of their goods in export markets, and such an outcome would be too deplorable to consider.

Through the close connection of the Commercial Intelligence Dearment with the compiling not only of the information regarding the products of Canadian factories and its publication in the "Canadian Trade Index," but also with the confidential information submitted on the same schedule, and compiled from answers to circulars, etc., the Department's work has been facilitated to a considerable degree. Nevertheless, instances are not unknown where your officers have been reduced to almost sheer guesswork in supplying the names of members to first-class people who have called on us for assistance, and who present opportunities much too valuable to be overlooked, and yet who, if misdirected through lack of information, may cause some annoyance to themselves and to our members, and possibly bring down on innocent, if persevering and enthusiastic heads, the anathemas of those annoyed.

There are so many different ways of doing export business dependent on the needs of a particular business or the policy or convenience of the company concerned that some further tabulation seems essential if success more complete than in the past is to attend our joint efforts.

The members of this Association probably need little reassurance that the staff in its employ is vitally interested

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1. In countries where your export sales are not already arranged for, do you desire sales representation?.....

.....

2. In what countries do you wish such representation?.....

3. What line of goods?.....

4. In what countries are you free to do business with outright purchasers without paying export commission?.....

.....

5. What form of sales representation suits your business best? (Indicate answer by a cross.)

   (*a*) Direct sales by your own salesman?.....

   (*b*) Sole agents on commission in different countries?.....

   (*c*) Sole agents on commission in different sections of countries? .....

   (*d*) Sole agencies with merchants in different sections?.....

   (*e*) Canadian Export Commission Houses?.....

   (*f*) Canadian reserve officers with European business connections? .....

   (*g*) Canadian salesmen with export connections or experiences? .....

   (*h*) London International Import Contractors?.....

   (*i*) Any other form of representation?.....
   (Please state it.)

For general information:

   (*a*) Are you interested in the formation of syndicates for export purposes, composed of manufacturers making the same line? .....

   (*b*) Would you value the receipt, in printed form, of information about good methods of developing and handling export trade? .....

in guarding the interests of individual members as well as those of the Association, and that no information of any character will be divulged in such a form that it may inure to their disadvantage.

In order to provide more efficient service along the lines indicated above, would members be prepared to give us on a confidential basis such information as the answers to the questions enumerated below would furnish?

We have endeavored to form the questions so as to render the answering of them a matter of ease for the man in your company who looks after the export business. At the same time comprehensive replies from all members interested in export would be of untold value to your Commercial Intelligence Department, would save much time and heartburning, and provide an efficient service that would ultimately prove valuable to members of the Association, particularly when supplemented by our Commercial Report service on foreign firms, which is also supplied free to members.

If you are prepared now to agree with this viewpoint, would you give instructions to have the questions answered, and that section of the page clipped and returned to us. Failing that, we should be glad to have any expression of opinion or further suggestions on the matter that the spirit of co-operation, which we know exists, prompts you to send to the Commercial Intelligence Department, Canadian Manufacturers Association, 1404 Traders Bank Bldg., Toronto, Ont.

Conditions in German Industries

Leipzig Fair of 1919 Gave Good Indication of How German Industry Stands—What the Germans Propose to do to Regain Lost Markets

(Commercial Intelligence Department)

IN the days before the war the National Industrial Fair held at Leipzig, Germany, usually afforded a good index of the standing as well as the growth and progress of German industries. Naturally enough, little was heard of it during the war, but reports on the activities of the 1919 Fair are available which give a reliable account not only of the Fair itself, but of the condition of the various industries and the prospective ability of Germany to compete for export trade.

The exhibitors at the 1919 Fair numbered approximately 10,000, mostly German. The attendance mark reached 118,000, or 20 per cent. more than in any previous year. This Fair must not be confused with the sort of Fair usually held in Canada. It is distinctly a buyers' and sellers' Fair where contracts are made in many cases for annual supplies of raw materials and manufactured goods.

Representative exhibitors in conversation with visitors left the distinct impression that many branches of German industry are verging on failure, due, in some degree, to the loss of export trade, but largely to the lack of supplies of coal and other necessary raw materials, many of which ordinarily come from other countries.

The German manufacturers are therefore planning to concentrate their export energies on modern mechanical contrivances and attractive novelties which they calculate will force their way into markets more readily than more staple commodities. Strong efforts are also being made to arrange for the development of their export trade through American and neutral channels.

Technical Section

From the above viewpoint, the most extensive exhibit was that section showing electrical devices, novelties, improved machines, and many types of new machine tools. Owing to maintenance of adequate supplies of raw materials in the metal working and electrical industries during the war, these industries are much better supplied than others, and are well prepared actively to re-enter export trade since the domestic demand for these products is much reduced. Foreign trade was the secret of Germany's success in the mechanical engineering trade, and it would appear that they occupy a strong position to reach competitive markets, particularly in those highly developed lines in which the labor cost is great in proportion to the cost of raw materials, provided always that they can overcome exchange disadvantages. It was noted in connection with the exhibits that the use of brass was avoided wherever possible and pressed steel substituted.

The following details regarding the technical section may be of interest:—

(1) Patents. Considerable quantities of specialized machinery was on view, and the Germans seem disposed to sell the covering patents for other countries to foreign manufacturers.

(2) Machine tool deliveries can in most cases be made from stock.

(3) A high proportion of the goods sold during the last six months has been for export.

(4) The prices are approximately 200-400 per cent. higher than for similar goods before the war.

(5) Considerable business has been developed with Holland, Norway, Sweden, Spain, and North and South America, but international banking arrangements in the unoccupied territories have not yet been re-established with England.

(6) The importer must make his own arrangements as to entry. The Germans handle the export regulations and shipping. Cash, in Germany, against invoices usually forwarded before shipment appears to be the ruling method of payment.

(7) The chief limiting factor in production is the shortage of coal.

Paper and Paper Manufactures

The exhibits displayed in this section were not at all varied in character. The principal articles of use as ordinary commodities were:—

(1) Stationery; the ordinary German quality of flat paper. No Manilla paper was shown.

(2) Art prints in wide variety comprising pictures, calendars, post cards, blotting pads, and many styles of decorative printing. Good colour work was the feature of these exhibits.

Owing to the scarcity of raw stock, many plants are closed down. The larger concerns, however, who are keeping on most of their workmen are producing about one-third of their normal maximum output.

The better grades of paper and stationery are simply not being produced. A considerable part of the low grade output has gone to South America, but the total orders in sight for export and domestic demand combined only reach about 33 per cent. of the possible output.

Similar accounts of the state of other German industries will be given in future issues of INDUSTRIAL CANADA.



How Exhibitions Attract the Public

Here are to be seen 1700 Automobiles parked in the grounds of the Great Eastern Exhibition at Sherbrooke

Our Exhibitions—A Neglected Opportunity

Apart from a Few of the Larger Fairs in the East, Our Exhibitions Are Not Being Used for the Display of Canadian Manufactured Goods as They Very Well Might Be—Manufacturers Should Take Action

By J. M. MACINTOSH

Manager, Trade Section Department, C.M.A.

CANADIAN manufactured goods are conspicuous by their absence in the great majority of the fairs and exhibitions held throughout the Dominion in the summer and fall months. There may be reasons, on account of the number of these fairs and their occurrence in all parts of the country at about the same time, for this condition, but even so, it is apparent that a golden opportunity is being lost. Some means should be worked out, particularly at the present juncture, when the made-in-Canada campaign is again being vigorously prosecuted, for placing exhibits in as many of these fairs as possible, and thus bringing to the attention of the people the merits and wide variety of Canadian manufactured goods.

The Trade Sections Department of the Association has been collecting information about exhibitions and ascertaining the facilities provided for the display of Canadian products. Its report on these fairs throws a good deal of light on the present situation and prospects. Dealing first with the Western fairs, the report reads,—

"A series of well equipped fairs are held in the Prairie Provinces and British Columbia each year, the more important being Brandon, Regina, Saskatoon, Prince Albert, Edmonton, Calgary, New Westminster, and Vancouver.

The Exhibition at Brandon

"Brandon provides buildings for the display of mercantile, industrial, motor, and a large outside space for farm machinery exhibits. They contemplate erecting another display building to meet the demand for inside space. The mercantile exhibits are from leading merchants in the province, and they include imported goods from Great Britain and the United States. In manufactures, such as farm machinery, implements, and automobiles, the principal Canadian manufacturers are represented but American manufacturers predominate. The directors are said to be desirous of encouraging exhibits of Canadian manufactured goods and are prepared to do their part in inducing Canadian firms to take advantage of the excellent opportunity the exhibition provides. If Canadian exhibits were equal to those in the United States, there would be no doubt as to which would get the business. Orders taken at this exhibition represent hundreds of thousands of dollars.

"Regina advises that the most important display of manufactured goods is in the implement section. Most of the exhibitors in this department prefer the out-of-doors location, but in addition to that they have an implement building with 30,000 feet of floor space. The space available is fully taken up and some demands could not be met. The Secretary reports that about nine-tenths of the manufactured goods exhibited were from the United States. The largest Canadian implement firms gave up their space last year and left the field to their American competitors.

Prince Albert Has Large Hall

"Prince Albert reports that they have a large exhibition hall for the display of manufactured goods. At the present time, there are very few manufacturers taking advantage of the space, but local retail merchants are beginning to appreciate the fact that the space is available for them. Outside that, about fifty per cent. of the products exhibited are of Canadian manufacture, the balance being of United States and British origin. 15,800 people attended the fair last year.

"Edmonton reports that they have a large manufacturers' building and in addition to that, have tent space for outside exhibits. They also have a transportation building used for exhibits of automobiles. Outside of those in the locality, manufacturers are slow to take advantage of this method of placing their wares before the public, although exhibits of farm machinery have grown so rapidly that it was found necessary to provide three times the space formerly allotted for this class of exhibit. American manufacturers are said to be much quicker to take advantage of exhibition advertising than Canadian firms.

Calgary Provides Facilities

"Calgary reports that they provide facilities for exhibits of manufactured goods in three buildings. The space avail-

able is taken advantage of to the limit of the capacity each year. The attendance at the exhibition this year was 127,248, and most of the exhibitors are said to be Canadians.

"New Westminster reports to the effect that they have an industrial building, but that they could not provide sufficient room to take care of one-half of the applications for space. The manufactured goods exhibited are said to be mostly Canadian.

Vancouver's Beautiful Grounds

"Vancouver reports that they have the most beautifully situated grounds in Canada, and that they have the best buildings outside of Toronto. The manufacturers' building is slightly over an acre in area. One half of the building is allotted for made-in-British Columbia goods; the other half for other manufacturers. Amongst these other manufactures fifty per cent. are said to be made in Canada, and nearly all the rest are made in the United States, with a fair sprinkling of European-made goods. The forestry building displays mining machinery and products. About eighty per cent. are made in Canada and the balance in the U.S.A. In the automobile exhibit about fifty per cent. is made in Canada and the balance in the United States. This is said to be the largest fair on the Pacific Coast.

"The information contained in this report in respect to these Western fairs has been obtained as the result of enquiries emanating from this Association. The secretaries have suggested that they will welcome co-operation from the Association in any effort that may be made to induce Canadian manufacturers to make greater use of these opportunities for showing their goods to the Canadian public."

The report of the Trade Section Department also deals with the exhibitions and fairs held in Eastern Canada.

Exhibits at Canadian National

"The Canadian National Exhibition, held in Toronto, is so well known that elaboration is unnecessary. From enquiries and personal observations it is estimated that the exhibits in the industrial building and machinery hall are approximately ninety per cent. Canadian. The manufacturers' building contains the exhibits of some retailers, jobbers, and importers, but it may be said that the exhibitors themselves are practically all Canadians. The manufacturers' annex consists more of specialties, many of American origin. In agricultural implements, Canadians are well represented. The demand for space is said to be greater than the supply and, taking into consideration the distribution of exhibits as between domestic and foreign countries in the proportions referred to, it appears that Canadian manufacturers are taking very satisfactory advantage of this opportunity of displaying their products. It will be understood that the directors desire to give encouragement to those exhibits which will be most attractive to the public eye. If more Canadians apply for space and the character of their exhibits is so improved as to make them more attractive than foreign exhibits, it would eventually result in the exclusion of foreign products. The fact that these foreign exhibits may be viewed by an attendance which aggregates upwards of a million suggests the value of the advertising these foreign products obtain through this exhibition.

Large Provincial Fairs

"Immediately following the Toronto exhibition, large provincial fairs of one week's duration are held in Ottawa and London. Both these fairs open on the same Saturday that Toronto closes. The Toronto management will not allow any exhibits to be removed until after ten o'clock on the evening of the last day and in consequence many exhibits which might be sent on to either the Ottawa or London fairs are held up and not shown in either of the latter fairs. Both these latter exhibitions have accommodation for such exhibits and while creditable displays are made they might be improved and a greater variety shown if there was not this overlapping in the dates.

"In addition to these large provincial fairs 217 fairs are held in the Province of Ontario in the months of September and October. These usually are for two days. The advertising to be gained from sending exhibits of goods for which there is a demand amongst the rural population to these fairs would be invaluable. These fairs might be divided into about six circuits. Each of these circuits might be taken care of by one set of samples and one representative.

"The Great Eastern Exhibition of Sherbrooke, has a building with 40,000 square feet of floor space and is generally full, although, it is said that some exhibits could be replaced to advantage. An examination of the list of exhibitors indicates a large proportion to be of local origin, some from Montreal, and a few from Ontario."

Fire did several thousand dollars damage to the match factory of the E. B. Eddy Co. at Hull on the night of February 17. The fire originated in what is known as the "box bins," on the top floor, where several thousands of boxes are stored.





The People are in a Receptive Mood

These immense crowds at the Edmonton Exhibition have come from near and far to be entertained and are ready to be interested in anything

Blue-Sky Law---Is It Desirable Legislation?*

How This Type of Law Originated and How It Has Worked Out in Practice—Views of Investigators—Remedy for Existing Evils to be Found in Provisions of Company Acts

By THOMAS MULVEY, K.C.
Under Secretary of State

THE subject for discussion is Blue-Sky Law. I think that the present is an opportune moment for discussing this subject. A bill for this purpose was introduced at the Local Legislature last session, and I understand that it is to be pressed again,—at least so it is stated in the newspapers,—it is to be pressed to enactment at this coming session. If the subject is to be discussed this is an opportune time for doing so, and I think moreover that the Manufacturers' Association as a body should consider such a question as this. The Manufacturers' Association is one of the most influential bodies of business men in the country, and this I think I can show is a matter which affects every business man. And even if it does not affect the business man individually, any question which affects the whole business community is of interest to the business man and manufacturer. It is for that reason I am glad to have the opportunity of discussing it before the Manufacturers' Association.

Measure Should be Discussed

Now this of course is a debatable question, and, while I have fairly express views upon the subject, all I desire is that a discussion of the subject should be carried on so that if it is enacted people will know the effect of the terms of the measure and how it will affect the general business community. In legislation of this kind it is beneficial to the whole community, at any rate, to have measures of this kind fully discussed. I appreciate my own personal position in appearing before you. A civil servant is not supposed to have any views. I quite agree he has no right to criticize any Government, but nevertheless I think when a matter is not one of acute partisan politics that an official who has views upon the subject which he thinks are in the business interests and interests of the community should have an opportunity of expressing himself.

Now first I think we must consider what Blue Sky Law is. As a matter of fact the term "Blue Sky" was not first of all applied to the law. They had in Kansas what they called Blue-Sky merchants. The Blue-Sky merchant was a gentleman who would sell corner lots on the Blue-Sky and guarantee title in fee simple. In other words they were vendors of absolutely fictitious securities. Now, Kansas was a splendid stamping ground for these individuals. Kansas is one of the most productive states in the whole of the United States. It is a purely rural state. The largest city, Kansas City, and that is really an overflow from Kansas City, Missouri, is 100,000, and the next largest city is only about 70,000, while the whole state has a population of almost two million, not much less than the Province of Ontario. So that when the harvest was reaped by the farmers, the Blue-Sky merchant came in for his harvest in endeavoring to separate the farmer from his money.

The legislation started there about the year 1911. Mr. Dolley, who was the originator of the Kansas Blue-Sky Law, was a successful merchant and in his business he became associated with financial institutions and he was director of a savings bank. In the campaign of 1911 he took considerable interest in one of the parties, I don't remember which it was, but at any rate his party was successful, and on account of the activity he displayed during the campaign he was entitled to what we consider is equivalent to a portfolio in our Government. He was appointed Banking Commissioner. He undoubtedly was a progressive and enterprising gentleman, and he saw the evils, and undoubtedly they are evils, throughout the state in bond salesmen and corner lot salesmen and all classes of people like that, simply defrauding the people right and left. His first move on the subject was to arrange with all the bankers in the state that, when any of their customers were seeking to draw any fairly large sum from the bank, the bank manager would enquire what was to be done with the money, and if it was to be invested in any kind of security which was being peddled about, information of it was to be sent to the Banking Commissioner at Topeka, and then an enquiry was made and information sent back to the bank manager. Undoubtedly in that way a great many people were protected from bad investments and it certainly did do a lot of good. This induced Mr. Dolley to frame the Blue Sky Law which was introduced in the Legislature of Kansas in 1911.

Now I should next, I think, describe in a few words what the provisions of this Blue Sky Law are. The main provision of it is that no one can sell a security of any kind in the State of Kansas unless not only a prospectus but a general view of the nature of the business is submitted to the Banking Commissioner and he approves of it. In fact no company may be incorporated without the approval of the Banking Commissioner. So that it is necessary for a person incorporating any company whatever to disclose the nature of his enterprise, the method by which he proposes carrying it on and the means upon which he proposes to make that successful. It is then in the business discretion of the Banking Commissioner to say whether this company should be incorporated or not. The same applies to securities of companies issued outside of the state. They must disclose their method of doing business to the Banking Commissioner before they can sell any of the securities in the state. There a lot of other provisions, one of which I will refer to more particularly, and it is that every person who sells securities of any kind should have a license from the Banking Commissioner.

The Law in Principle and Practice

There are two methods of discussing this subject. One is on the question of principle to determine if possible whether this method infringes upon any well laid down principles of business or liberty or of morality, and the second is to determine whether, in view of the experience which we have had now for about eight years of the Blue Sky Law, it has accomplished what it purported to do.

There is no question but that Blue Sky Law is a direct interference with ordinary business. None of you gentlemen who perhaps want to reorganize your business and get in fresh capital could reincorporate your companies without disclosing a great deal of information which is personal,

* An address delivered before the Toronto Branch, C.M.A., Thursday, January 29, 1920.

private and belongs to yourself. In the next place it gives an official such a control over the general business of the community which may in certain cases develop into a crime.

There are a lot of well laid down principles of liberty which have grown up in the years of trouble, years of revolution, years of war, but at the present time we seem prone to throw them aside. I can illustrate my meaning by some recent comments in the newspapers about Temperance Legislation. I don't want to criticize either Temperance or the Ontario Temperance Act or anybody connected with it, and it is likely that this remark had no origin whatever except in the fertile brain of the newspaper men. It was to the effect that the quantity of liquor in a person's cellar should be limited. Now, that I have no doubt was given out without any question whatever of really what it meant. It took the people of England many centuries to arrive at the principle which we now adopt without question, that a man's home is his castle, that no one has any right to say what he shall have in it so long as he obeys,—I was going to say, obeys the law, that is not what I should say,—so long as he lives peaceably with his fellowman. So long as he does that his home is his castle and he may do what he likes. That principle of liberty which was I say wrought out after turmoil, trouble, bloodshed and everything else would be cast away entirely if a principle such as was enunciated should be introduced. It appears to me that Blue Sky Law is in the same class as Legislation of that kind. It is very difficult to point out so clearly as you can with respect to the liquor in the cellar how it infringes ordinary business methods, but it sticks out on the face of it that the freedom of business is interfered with. A man cannot deal with his property in the way he should without State intervention. On these grounds I submit that it is wrong in principle.

The Experience of Eight Years

Now, I would like to go into consideration to some extent of the methods adopted and how they have worked out in the last eight years. One of the first references is to a report by Mr. Dolley, on the administration of the Blue-Sky Law in Kansas during the first couple of years, and this is taken verbatim from his report. I will refer not only to some of the statements which he makes here but I would like you also to pay attention to the wording of this clause of the report because it indicates a great deal of the character of the man who wrote it: "The Department succeeded in getting the last legislature to pass House Bill 906, commonly known as the Kansas 'Blue Sky' Law, providing for the regulation and supervision of the sale of stocks, bonds, and other securities. This law, as you know, was something entirely new in the business world, but I am pleased to inform you that we have worked the same out in a very nice shape and accomplished some wonderful results. I estimate that it has saved the people of this state at least six million dollars since its enactment. Between fourteen and fifteen hundred companies have been investigated by this Department since the enactment of this law, and of this number less than one hundred have been granted permits to sell their securities in Kansas. The law is rapidly gaining fame all over the civilized world, and I believe that a large number of the states will adopt a similar law at the coming sessions of their legislatures. I believe that a movement has been started that will eventually result in the regulation and supervision of all kinds of companies in the same manner as banks are now regulated and supervised. There are a few minor amendments that should be made to this law, which I will be pleased to recommend to the legislature at the proper time."

I personally investigated the files of the Banking Commissioner at Topeka, and the statements contained in that report are not facts. Down to the first of April, 1913, permits were granted to 49 companies and refused to 62. That is what the files of the Department show. The balance of the applications were held for consideration. One of them that was held, as stated to me at Topeka, was a co-operative agricultural implement concern from Chicago which applied to Mr. Dolley for license. It was held because this was a very large concern and they didn't have an opportunity of fully investigating the business outlook which it had, so it was given a temporary permit and it immediately proceeded to sell I think about $700,000 worth of its securities in Kansas. It was questioned later on. Mr. Dolley asked for the reports so that he might really consider whether a license should be granted, but they refused to do it. They had sold all the securities they desired in Kansas and they backed out. They were in liquidation, I think, within six months and shown to be an absolute fraud.

The Law was not Adequate

Nobody can say that provisions of this kind do not work some good in some places. I haven't any doubt but a number of fraudulent enterprises were chased away from Kansas during the first few years that it was in operation, but the Blue-Sky Law of Kansas was not sufficient to protect the people even in the first days of its enactment from the loss of $700,000.

These reports are issued for the general benefit not only of the people of the country in which they are issued but for the general benefit of the world at large, so that they may know how Legislation is proceeding and how it is being administered, so that they may guide themselves in similar legislation. It is a reflection upon the whole system when a report should universally misstate what took place. The statement in the part I read giving the figures of the number of companies licensed and the number refused is absolutely wrong. I do not depend upon my own investigation for that statement. I discussed it with the Professor of Economics of Lawrence University. He also had investigated the files of the Banking Commissioner at Topeka and his result agreed with mine. And not only was that confirmed at the time, but the statement which I make now was published four years ago and it has never been contradicted, and it was published in the *American Economic Review*.

Interesting Defence of Law

There has been recently a defence of the Blue-Sky Law which is rather interesting. The Investment Bankers' Association of America is a very prominent organization. It is an organization somewhat similar to this throughout the United States. It looks after the interests of, they call them there Investment Bankers, here what we call Bond Brokers. It is the Bond Brokers' Association of the United States, and it is of vital interest there to all their members that legislation of this kind should be carefully looked after. They have a bulletin which they publish very often and lately they published an article by Mr. C. J. Andre, who is Secretary of the Blue-Sky Law Commissioners. That is the Association of Commissioners that administer these laws throughout the whole of the United States. I don't know that it was intended this article should be of benefit to the Blue-Sky Law. It is quite apparent from the ending of it where the Investment Bankers' Association add a little note which gives real point to Mr. Andre's remarks. He says during the first year the law was in operation in Minnesota, it was estimated at least $50,000,000 of fraudulent securities or worthless securities were excluded from the state through the efforts of the State Security Commission. You might as well say the police of Toronto prevented robberies to the extent of $2,000,000 last year. If there were no police here it might be there would be $2,000,000

stolen, but since there are police here it does not follow that the police stopped that quantity of theft. It is an illogical statement and conclusion.

One Case Justified Expense

"Compared with the service rendered to the people of the State and to the country as a whole, the expense of maintaining the Department, which for the first year, amounted to $27,000, was insignificant. Indeed, a far greater expense would have been justified to correct the evils which had such a firm footing in the state. One case alone justified the whole expense of the Department for the first year. In that case a promoter had planned to conduct an extensively advertised selling campaign to dispose of $40,000 of securities."

Now the note which is added to what I refer to, and which the point of is made, is as follows: "As a matter of fact the Blue Sky Information Committee reported to the press that the president and promoter of the Pan Motor Company, of St. Cloud, Minnesota, has been found by the Federal Court guilty of using the United States mails for a scheme to defraud (approximately $9,500,000, of the stock had been disposed of by alluring advertisements to about 70,000 victims), and sentenced to ten years in the Federal penitentiary."

Another case which is of very considerable interest is in Chicago. About a little more than a year ago the investigation took place. A company called the Consumers Packing Company was incorporated. They were licensed by the Blue Sky Law Commissioner and they did a very extensive campaign of stock selling, and very shortly it was found that the company was an absolute fraud after millions of dollars of securities had been sold. All the promoters of the company were indicted by the Grand Jury of Chicago, and the matter investigated by the State Attorney. I don't depend much on newspaper comments but this may show the popular view at any rate of the Blue Sky Law as held in Chicago at that time or following that investigation.

"Blue-Sky Legislation which seeks to eliminate fraudulent stock selling schemes through the medium of a state licensing system has been given a thorough try-out in Illinois and has proved a failure. The shortcomings of the existing law are more apparent perhaps than they would have been if its enactment had been accompanied by an appropriation which would permit of a thorough investigation by state officials before licenses for securities, commissions and sales were issued.

"That much is granted. Nevertheless it is a fact that salesmen armed with licenses to which the seal of the State of Illinois is affixed have found gullible investors ready and anxious to believe that the state has approved their project and has affixed its O.K. to their claims, that the person who refuses to buy the security is deliberately thrusting the opportunity of '20% dividends the first year, 30% the second, etc.' aside forever.

"At the moment the Legislature is preparing a new Blue-Sky Law. It is hoped by the bankers of the state, the bona fide investment houses and their securities salesmen, that licensing will be done away with. Though this system was originally intended to prevent fraud it has in itself proved one of the worst instruments in fraud."

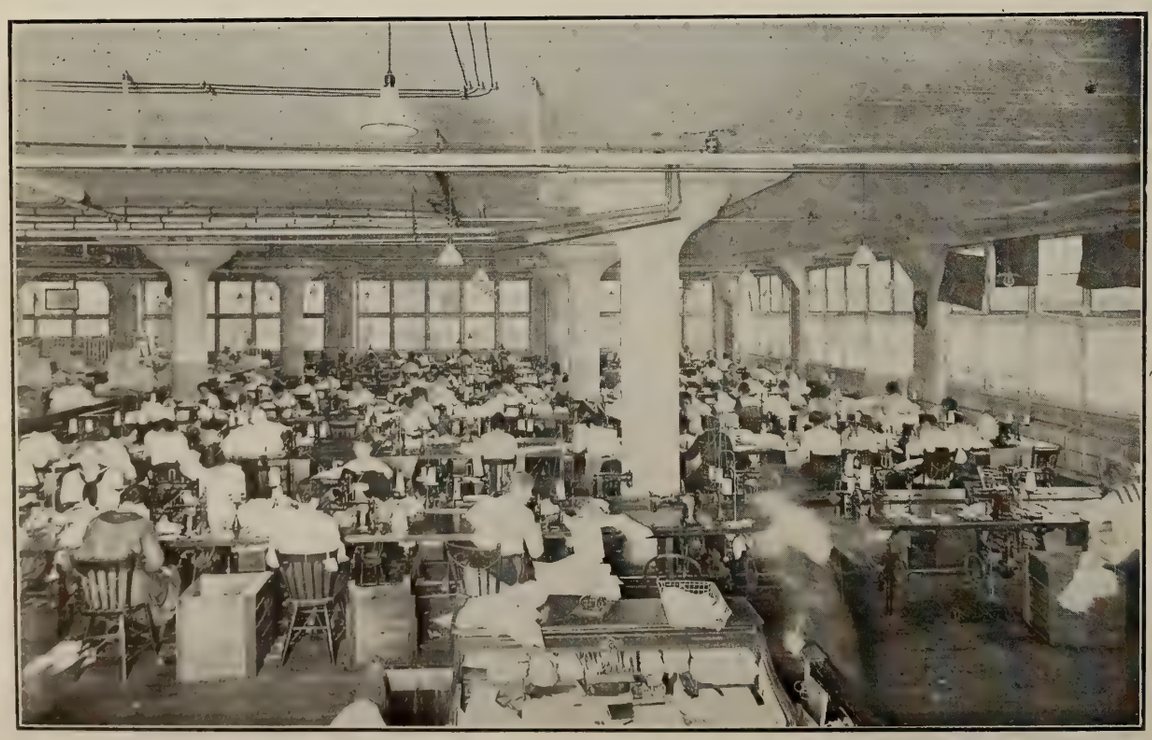
A Function Misplaced

"It is additionally objectionable, inasmuch as it makes an executive official of the state exercise a semi-judicial function, a function that properly belongs to our Courts."

Now the Blue-Sky Law of Illinois was repealed after that investigation and they have gone in that state practically to the system which was adopted in England in the year 1900.

The subject of Blue-Sky Law has quite recently been investigated by the State of New York. The Governor of that state appointed a Commission last September to fully investigate the matter. The Bill was introduced in the last session of the New York Legislature but on account of objections which were raised it was submitted by the Governor to this Commission. I will refer particularly to the findings of this Commission, but there is one of them from which I would like to read: "The difficulty is two-fold: first, that

(*Continued on page* 110)



Bright, healthy conditions under which girls are working in a Canadian shirt factory. Photo by courtesy of the Williams, Greene & Rome Co., Limited, Kitchener.

New United States Railroad Legislation

The Transportation Act, 1920, confers some very important and wide powers upon the Interstate Commerce Commission—Provision made that railways shall receive a fair return—The matter of claims

By S. B. Brown
Asst. Manager, Transportation Dept., C.M.A.

AT the time of writing, the bill to return the railroads to private ownership, which has been before the United States Congress for some time, has finally passed both the House and Senate and is now before the President for his signature. When it is passed, the new law will be known as "The Transportation Act, 1920."

The document, as submitted to the President, is quite formidable and contains 121 pages of approximately 30,000 words, divided into five titles, as follows:

(1.) Definitions of Terminology.

(2.) Termination of Federal Control.

(3.) Disputes between carriers and their employees and subordinate officials.

(4.) Amendments to the Act to Regulate Commerce.

(5.) Miscellaneous Provisions.

Commissions Rate-Making Powers

Some very important and wide powers are placed upon the shoulders of the Interstate Commerce Commission by this Act. One of the most important features is the rate-making provision, which requires that the Interstate Commerce Commission, in the exercise of its power to prescribe just and reasonable rates, shall institute, modify, establish or adjust such rates so that the carriers as a whole (or as a whole in each of such rate groups or territories as the Commission may from time to time designate), will under honest, efficient and economical management and reasonable expenditures of maintenance of way, structures and equipment, earn an aggregate annual net railway operating income equal, as nearly as may be, to a fair return upon the aggregate value of the railway property of such carriers held for and used in the service of transportation. This is subject to a proviso that the Commission shall have reasonable latitude in any particular rate which they may find unjust or unreasonable.

For a period of two years, beginning on March 1st, 1920, the Interstate Commerce Commission, in determining a reasonable rate of return, must use a sum equal to 5½ per cent. of the aggregate value referred to above, but may, at its discretion, add thereto a sum not exceeding ½ of 1 per cent. of such aggregate value, for the purpose of providing further for improvements, betterments or equipment, etc.

Method of Determining Value

The bill also provides in this section for the manner in which the Commission shall determine the aggregate value referred to. In fact, the aggregate value is to be determined from time to time by the Commission, so that there is liable to be a fluctuation.

Should any carrier receive for any one year a net railway operating income in excess of 6 per cent. of the value, one-half of such excess shall be placed in a reserve fund established and maintained by the carrier, and the remaining half shall be recovered and paid to the Commission within the four months following the period for which such computation is made. This is for the purpose of establishing a general Railroad Contingent Fund.

The new Act will also give the Interstate Commerce Commission considerable power; in fact, power similar to that of the President, in regard to the question of car supply, embargoes, etc.

How Claims are Handled

In the matter of claims: amendments to the Interstate Commerce Act are provided, which will place the shipper and carrier on an equality. At the present time if the railway company finds that an undercharge has occurred, it may sue the shipper or consignee for the amount at any time within three or four years; whereas the consignee, finding an overcharge, must sue the railway company within two years. The new provision will make it clear that all actions of law by railroads for the recovery of their charges shall be begun within three years from the time the cause of action accrues—and not after.

In connection with the question of suspending tariffs filed with the Commission, the new bill proposes to restrict the period of suspension to not longer than 120 days. After hearing, whether completed before or after the rate goes into effect, the Commission may make such order with reference thereto as would be proper in a proceeding initiated after it had become effective. Suspension cases, therefore, will have the same standing as formal complaints.

Provision for Suspension

If the hearing cannot be completed within 120 days there may be a further suspension not exceeding thirty days; and, if additional time is necessary, the proposed change of rates will go into effect at the end of 150 days. The Commission, however, is empowered to require the carriers to keep accurate account of all amounts received by reason of such increase.

The different labor organizations have been very strenuously opposing any law proposed in regard to the question of compulsory arbitration. The new Act requires the carriers and their officers, employees and agents to exert every reasonable effort and to adopt every available means to avoid any interruption to the operation of any carrier, growing out of any dispute between the carriers and the employees or subordinate officials thereof; disputes to be considered and decided, if possible, in congress between representatives designated and authorized so to confer by both sides.

Railway Boards of Labor Adjustment may be established by agreement; the establishment thereof being left entirely in the hands of the railways and their employees.

The bill also provides for the creation of a Railway Board of Labor Appeals, composed of nine members equally divided between employers and employees and the public, appointed by the President, with advice and consent of the Senate, for a five-year term. The employees and employ-

ers may each nominate six persons, from whom the President will make his selections.

Another very important change is a proposed amendment to the Interstate Commerce Act permitting the Interstate Commerce Commission to prescribe minimum rates, except when one of the carriers in a through rate is a water carrier.

Freight Classification

Proposed Supplement to Classification No. 16 Considered at Meeting in Montreal

The proposed supplement 13 to Classification No. 16 was given consideration at a meeting with the Canadian Freight Association at Montreal on February 19, which was attended by the Assistant Manager of the Transportation Department. Changes in ratings and conditions of carriage were considered in connection with the following items:

Cones—Ice cream.
Olives, in bottles, packed in boxes.
Buggies, Carriages, Wagons.
Bar Iron and Steel.
Children's Vehicles.
Dressing or Blacking.
Furniture—bamboo, rattan, reed, willow, etc.
Rubber, unvulcanized.
Shells—Clam, Mussel, Oyster, or Scallop.

The question of changes in ratings on ice cream cones has been taken up further with the interested manufacturers, and as soon as this is disposed of, the supplement will be approved by the Board of Railway Commissioners.

The other changes proposed in connection with the above-mentioned articles were satisfactorily adjusted.

Freight Tariffs

Charges for Freight Tariffs Have Been Raised by Canadian Freight Association

In the December, 1918, and March, 1919, issues of INDUSTRIAL CANADA, the charges for freight tariffs supplied by railway companies to the shipping public, as well as the method of procedure in securing same, were outlined for the benefit of our members.

We have just received a general circular, No. 14, issued by G. C. Ransom, Chairman of the Canadian Freight Association, on behalf of the various lines in Eastern Canada, which proposes to increase the present charges for tariffs by 5c. a copy up to 96 pages, and for issues of a greater number of pages a new schedule has been named, as follows:

	Charge
More than 196 pages and not exceeding 296	$1 50
" 296 " " " 396	2 00
" 396 " " " 496	2 50
Exceeding 496 pages	3 00

The distribution of tariffs will remain as at present.

War Tax on Freight Tolls

New United States Regulations Issued Regarding Shipments From U. S. to Canada

The Treasury Department of the United States Internal Revenue have recently issued revised regulations, No. 49, relating to the collection of tax on transportation and other facilities, known as Title "V," Sections 500, 501 and 502 of the Revenue Act of 1918.

These revised regulations provide, at article 18, that shipments from the United States to Canada or Mexico, under through bills of lading or under through live stock contracts, need not be covered by either the temporary exemption form or certificate of exportation.

Live Stock Contract

Hearing held at Ottawa on February 10 and Decision Likely to be Announced Soon

The General Manager and Assistant Manager of the Transportation Department appeared before the Board of Railway Commissioners in Ottawa on February 10, in connection with the question of live stock contracts.

A meeting was held in Ottawa on February 9th, with a number of shippers' representatives, and at the meeting it was decided to engage counsel on behalf of the Packers' Section of this Association, as well as the Winnipeg Live Stock Exchange, and the Western Live Stock Shippers' Association, all of whom agreed to join in defraying the expense in connection therewith.

Mr. George Henderson, K.C., of Ottawa, was appointed to handle the case for the Packers' Section of this Association and the other interests at the hearing on February 10th. The matter was given very careful consideration, and it is believed that the question will be settled definitely in the very near future.

New Steamship Service

Elder Dempster & Co. to Inaugurate Line to West African Ports in May

Commencing with sailing from Montreal in May next, Elder, Dempster & Co., Limited, will inaugurate a new service between Canada and West African ports. This service should afford an opportunity for Canadian manufacturers to find a new market for many articles now being imported by West Africa from other countries.

Among the various articles imported by West Africa are quite a number which can be supplied from Canada, as the following list will show:

Bolts.
Nuts.
Washers.
Nails.
Steel Bars and Plates.
Enamelware.
Guns.
Castings.
Lamps.
Machinery.
Matchets.
Railway Material.
Rolling Stock.
Automobiles.
Bicycles.
Brassware.
Sewing Machines.
Hardware of all kinds.
Bags.
Felt.
Roofing Felt.
Ropes.
Cordage.
Cottons.
Cotton Yarn.
Woollens.
Dry Goods of all kinds.
Bricks.
Cement.
Lime.
Coal.
Salt.
Soda.
Glassware.
Paint and Oils.
Clay Pipes.
Beads.
Matches (Safety).
Mirrors.
Brooms.
Brushes.
Earthenware.
Carbide.
Soap.
Candles.
Tar.
Disinfectants.
Creosoted Timber.
Dressed and Rough Lumber.
Furniture.
Empty Casks.
Shooks.
Packing Paper.
Musical Instruments.
Toys.
Gin.
Whisky.
Rum.
Wines and Spirits.
Beer.
Mineral Waters.
Tobacco.
Cigars.
Cigarettes.
Flour.
Biscuits.
Cereals.
Sugar.
Condensed Milk.
Jams.
Canned Meats.
Canned Fruits and Vegetables.
Beef.
Pork.
Dried and Canned Fish.
Butter.
Syrup.
Molasses and Provisions of all kinds.

The first sailing, which will commence in May next, from Montreal, will touch at the following West African ports:

Dakar, Bathurst, Conakry, Sierra Leone, Sherbo, Monrovia, Grand Bassam, Axim, Sekondi (for Kumassi), Cape Coast Castle, Accra, Lome, Cotonou, Lagos, Forcados, and Creeks, and all ports beyond and up to Calabar and other points, as inducement offers.

West Africa is also in a position to export certain raw materials, which undoubtedly can be used in Canada. The principal exports are as follows:

Cocoa.	Palm Oil.
Palm Kernels.	Ground Nuts.
Mahogany.	Ginger.
Piassava.	Hides and Skins.
Rubber and Gum.	Hemp (sisal).
Ivory.	Manganese Ore, etc.

Elder, Dempster & Company, Limited, Room 133, Board of Trade Building, Montreal, who have for a number of years operated the service between Canada and South Africa, will also operate the new service, and will be pleased to supply full particulars as to freight rates, space, and any other details in regard thereto.

It is suggested that members of the Association should endeavor to take advantage of this service, and to support it to the fullest extent.

Steamship Sailings

Proposed sailings from West St. John, St. John, Halifax, and Portland in the Near Future

West St. John to Liverpool.

*Canadian Ranger	Can. Gov't Mer. Marine, Ltd.	Ab't Mar. 10
Scandinavian	C.P.O.S. Lines	Ab't Mar. 12
Empress of France	C.P.O.S. Lines	Ab't Mar. 13

*Sails from St. John.

West St. John to London.

Holbrook	C.P.O.S.-Furness Line (C.P.O.S.)	Ab't Mar. 14
*Canadian Trooper	Can. Gov't Mer. Marine, Ltd.	Ab't Mar. 16

*Sails from St. John.

West St. John to Antwerp.

Cornish Point	C.P.O.S.-Furness Line (Furness)	Ab't Mar. 13

West St. John to Glasgow.

Pretorian	C.P.O.S. Lines	Ab't Mar. 11

West St. John to Avonmouth Dock (Bristol).

Sardinian	C.P.O.S. Lines	Ab't Mar. 13

West St. John to Manchester.

Manchester Mariner	Manchester Liners	Ab't Mar. 20

West St. John to Bordeaux (France).

Wisley	Can. Trans. Atlantic (Fran-Canada Line)	Ab't Mar. 8

West St. John to St. Nazaire (France).

Alston	Marine Navigation Co.	Ab't Mar. 10

West St. John to Belfast.

Ramore Head	Head Line	Ab't Mar. 12

West St. John to Dublin.

Carrigan Head	Head Line	Ab't Mar. 10

West St. John to Buenos Ayres, Montevideo and Rosario.

A Steamer	Houston Line	Ab't Mar. 10

West St. John to South African Ports.
Cape Town, Port Elizabeth, East London, Durban, Delegoa Bay.

Jebba	Elder Dempster Line	Ab't Mar. 10

West St. John to Australasian Ports—Melbourne, Sydney, Brisbane, Auckland, Wellington and Dunedin.

Somerset	New Zealand S.S. Company	Ab't Mar. 20

Halifax to Liverpool.

Canadian Miller	Can. Gov't Mer. Marine, Ltd.	Ab't Mar. 25

Halifax to Glasgow.

Canadian Settler	Can. Gov't Mer. Marine, Ltd.	Ab't Mar. 16

Halifax to Havana, Cuba.

Canadian Trader	Can. Gov't Mer. Marine, Ltd.	Ab't Mar. 10
Canadian Sailor	Can. Gov't Mer. Marine, Ltd.	Ab't Mar. 16

Halifax to Santiago (Cuba) and Kingston (Jamaica).

Watuka	Pickford & Black	Ab't Mar. 10

Portland to Liverpool.

Dominion	White-Star-Dominion Line	Ab't Apr. 3

Portland to London.

Venusua	Anchor-Donaldson Line	Ab't Mar. 15

Portland to Glasgow.

Saturnia	Anchor-Donaldson Line	Ab't Mar. 6

Portland to Avonmouth.

Turcoman	Dominion Line	Ab't Mar. 25
Welshman	Dominion Line	Ab't Apr. 3
Cairnvalona	Thomson Line	Ab't Mar. 15

Portland to Antwerp and Rotterdam.

Haxelhurst	Rogers & Webb (R. Reford Co. agents)	Ab't Mar. 15

West St. John to South Africa—Cape Town, Port Elizabeth, East London, Durban and Delagoa Bay.

Benguela	Elder Dempster Line	Ab't Mar. 31

St. John to Havana (Cuba).

Canadian Sower	Can. Gov't Mer. Marine, Ltd.	Ab't Mar. 10
Canadian Adventurer	Can. Gov't Mer. Marine, Ltd.	Ab't Mar. 15

John McClary's Advice

How London's Veteran Manufacturer is Playing his Part in the World's Work

(From "McClary's Wireless")

On January 2nd, 1920, Mr. John McClary, president of this company, passed the milestone of his ninety-first birthday, celebrating it in the enjoyment of comparatively robust health, and more than comparatively keen zest and unabated interest in every newest turn of the road.

If we were to ask Mr. McClary to give us, out of his greater experience a message for the New Year, we are pretty sure he would hesitate a little, likely disclaiming modestly any particular merit in what he might find to say; urged, he would perhaps accede.

Let us tell you then that practically every business day of the year, nine o'clock—promptly—sees Mr. McClary coming into his office, and taking up with never flagging interest the matter of the progress of the most important affairs of the company's management at the moment—frequently, too, they are ones of which his lieutenants may be slow to recognize the true importance.

Every day in his leisure hours he plays the games that most appeal to him, the card games they are, that bring into play the skill of combined concentration, observation and recollection, deduction and foresight. And he plays them to win.

His days, each with its quota of business, recreation and work hours, are ruled systematically, by a set schedule that long practice has now made habit.

He sees to it, so far as a mere human can, that he keeps physically fit and mentally alive and in step with the latest and best in the world's progress.

And finally, he laughs often and heartily. It isn't so long ago that he one day unexpectedly discovered a most audacious and decidedly questionable deal that someone was scheming to slip over on him while the matter it concerned was completely out of his mind as being taken care of in bulk, with others of its kind.

Does anyone imagine him giving any more or less spectacular expression to wrath, as so many in the same circumstances would have felt it their privilege to do, and as many more would have considered a duty to themselves and a rehabilitation of outraged dignity?

If anyone does imagine this he is entirely in error.

He sat silent a few minutes—righteously indignant, no doubt, but wasting no words over it Then the sheer effrontery of the attempt—the overwhelming exhibition it presented of unmitigated and unbelievable nerve—struck his sense of humor, and he laughed in a way that would have been worth several more hundreds of dollars than the sum involved. Only of course, once he learned of it, he didn't let himself be robbed of the hundreds of dollars either.

From these fragments out of the whole let us formulate the New Year's message of his deeds.

"To live long and enjoy every individual day of life, have one absorbing interest, and at least one pleasurable recreation—and play them both hard.

"Deal with unvarying justice with all men, and with kindliness with those who need it.

"Keep the mind always young, and the body as young as, with intelligent care, is possible. To do these requires care, constant and unremitting, but the result is a thousand times worth it.

"Finally, laugh often and well—at your own troubles if nothing better offers."

Canada's Industrial Expansion

A Record of Progress

Enlargement at Peterboro

Canadian General Electric Co. Have Plans for Greatly Extending Their Plant

In connection with the announcement from Peterboro that the Canadian General Electric Co. were proposing to spend between $600,000 and $1,000,000 on extensions to their plant there, an official of the company states that the programme of the company has not yet been definitely decided upon and until that time no details can be announced. The company, through its president, Senator Frederic Nicholls, is asking for certain concessions in the way of fixed assessment from the city.

Building New Plant

Fielder Paper Box Co., Toronto, Are Erecting Two-Storey Building on Berkeley Street

Rapid growth in the business of the Fielder Paper Box Co., Toronto, has led to the erection of a new factory, with double the capacity of the present plant. The business was organized in April, 1918, and operations have been carried on at 208 Victoria Street. During the past summer an effort was made to rent a larger and more suitable loft for the business, but the company were unable to secure premises, and were forced, much against their will, to erect a building for themselves. The location is on the west side of Berkeley Street, and the building is of two stories, mill construction. They hope to occupy it some time in April.

Double Their Capacity

The Newell Mfg. Co. of Prescott Acquire Two Buildings Which Will Give Greater Space

The Newell Mfg. Co., Prescott, Ont., manufacturers of upholstery, hardware, pole ends, extension curtain rods, etc., have recently purchased two one-storey fire-proof brick buildings in Prescott, which they are connecting up to facilitate manufacturing operations. The two buildings combined will give about 15,000 square feet of floor space, and being of skylight construction, will provide almost a daylight factory. The probable date of completion will be April 1. While in their new quarters the company will be able to double their present output of extension curtain rods, nickel-plated goods, and brass fixtures.

Decide on Drummondville

Jenckes Spinning Co. of Pawtucket, R.I., to Build Canadian Plant at This Point

After examining the advantages offered by several Canadian manufacturing centres, the Jenckes Spinning Co., of Pawtucket, R.I., have finally decided to build their Canadian plant at Drummondville, Que., and the contract has already been let for its construction. The main building will be about 500 feet long by 127 feet wide, four stories and basement. The work of erection will be rushed, as the company are anxious to reach the producing stage as rapidly as possible. A Canadian corporation, entirely separate from the Pawtucket organization, will be formed, under the name of the Jenckes Canadian Company, Limited. The company will manufacture auto tire fabrics, and will employ from one to two thousand hands.

To Produce in the Spring

Four Wheel Drive Auto Co. Hope to Have Factory in Kitchener Completed by Then

The Four Wheel Drive Auto Co., Limited, who are erecting the first unit of their Canadian factory in Kitchener, hope to have it ready for operation early in the spring. The building is 100 x 120 feet in size, and will be followed by other units as the business grows. It is the intention of the parent company in Clintonville, U.S.A., to do a considerable amount of export business from the Canadian plant, particularly in other parts of the British Empire. The Canadian company report prospects as being very bright. With the present programme for road building, for which the F.W.D. truck is especially adapted, they are looking for excellent results from the year's business.

Enlarge Ice Cream Plant

Proprietors of Amherst Mineral Water Co. Putting Up Extension to their Premises

Messrs. Taylor and Tennant, proprietors of the Amherst Mineral Water Co., Amherst, N.S., are at present adding a one-storey brick building, 30 x 40 feet, to their ice cream department, and equipping it with the latest machinery for the manufacture of this product. This will include ice making plant, hardening and storage rooms, emulsifier and pasteurizer. They expect to add about five hands to their staff, and have the new construction completed by about April 15.

Plans for Three Mills

Provincial Paper Mills, Limited, to Build at Thorold, Mille Roches and Port Arthur

For some time back engineers of the Provincial Paper Mills, Limited, have been preparing plans for enlargements at the company's mills at Thorold and Mille Roches, and at the mill of the Port Arthur Pulp & Paper Co., the company's western subsidiary. Land for the purpose has been acquired, and at each site buildings will eventually be erected to accommodate two machines. One machine will be installed along with the construction of each building and further machines as conditions warrant, making in all six additional machines, with a total tonnage of not less than 120 tons, making, with their present production, 200 tons per day. Plans and specifications for the first additional plant have just been completed. This plant will be fully equipped with the most modern machinery available and

will have a capacity of about 20 tons daily of either book, writing or bond papers. This plant will be rushed to completion as soon as weather conditions permit, and as rapidly as the Canadian market consumes this increased tonnage the company will proceed with the installation of further machines.

Make Foundry Extension

Philip Gies Foundry, Kitchener, Expect to Have New Plant Running by May

A foundry extension will be built this spring by the Philip Gies Foundry, manufacturers of grey iron, brass, bronze and aluminum castings, Kitchener. They expect to start building about the middle of March and have the extension completed by about May 1. It will be equipped in the most up-to-date manner, with ten-ton electric crane, electric elevator, direct-connected blower for cupola, exhaust tumbling barrels, moulding machines, new core ovens, etc.

Have Extended Foundry

The National Shipbuilding Co., Limited, Goderich, Are Making Some Interesting Developments

The National Shipbuilding Co., Limited, Goderich, have extended their Foundry Division, and have now a floor space of 16,000 square feet. They have installed two 25-ton cupolas and several moulding machines for production foundry work.

The company further announce that they intend to install a mill for the refining of fibre and seed from the flax crops in the vicinity of Goderich. Details of the project, however, are not yet available. In this connection it is interesting to note that the company have recently secured the right to manufacture a new machine for flax-pulling.

Progress at Bear River

Pulp Mill of Clarke Bros., Limited, Should be Producing by the Summer

It is estimated that about two-thirds of the work of construction on the new Kraft pulp mill of Clarke Bros., Limited, Bear River, N.S., has been completed. The cold weather has delayed operations somewhat, but it is hoped to have the mill ready for operation by summer. All brick and steel is on the ground, as well as most of the machinery. In the meantime, the new sawmill adjoining the pulp mill has been completed. This has a capacity of 6,000,000 feet per annum. At the company's clothes-pin factory at Lake Jolly production has been speeded up, and, with day and night shifts operating, output has reached 3,000,000 pins per day. These are practically all sold in the British market. So far as the pulp output is concerned, the entire output of the mill has been sold on a ten-year contract to the Ironsides Board Corporation, Norwich, Conn., manufacturers of jute boards used in the manufacture of corrugated and fibre shipping cartons. The outlook for all branches of the Clarke Bros. business is good.

Secure More Space

Sangamo Electric Co. of Canada, Limited, Take in 4,000 Square Feet of Space

The Sangamo Co. of Canada, Limited, 183 George Street, Toronto, are connecting up their factory with a warehouse building in the rear, which they are converting into a factory in order to extend their plant. This will add 4,000 square feet to their manufacturing space, one-half of which will be used for an enamelling department, and the other half as a magnet plant. The addition will help to take care of the natural increase of business.

Locate in Ingersoll

The A. I. Root Company, Medina, Ohio, Will Start Branch Plant in Near Future

The A. I. Root Company, manufacturers of beekeepers' supplies, Medina, Ohio, have selected Ingersoll as the location of their Canadian branch plant, which they hope to have in operation within the next few months. They will occupy part of the Noxon Building. They do not anticipate a full force until the season of 1922, as they are obliged to build practically all of their machines, with the exception of a few standard woodworking machines.

Just how many hands will be employed is rather uncertain, much depending upon trade conditions as they find them in Canada. They are expecting, however, not only



View showing how the pulp mill of Clarke Bros., Limited, Bear River, N.S., now in course of erection, will look when completed this summer.

to take care of the trade in Canada, but in many colonies of Great Britain. All factory operations will be the same at Ingersoll as at Medina, except that they will begin on a smaller scale. Eventually, they expect to organize a separate Canadian company, though for the present the Canadian plant will be directed from the home office.

Ladder Manufacturers Expand

McFarlane Manufacturing Co., Toronto, Moved About March 1st to Larger Premises

Having been ten years in their present factory at 154-160 River Street, Toronto, McFarlane Manufacturing Co., manufacturers of ladders, washboards and other woodenware, have been forced to seek larger quarters. They have purchased the plant on Main Street, East Toronto, formerly occupied by the Canadian Wood Products Co., and moved in about March 1. They now have double the former manufacturing space, with private siding, and plenty of room for future expansion. A lot of new equipment has been installed, and it is the intention to manufacture a complete line of kitchen woodenware along with their ladders and washboards.

Planning Large Building

Dominion Loose Leaf Co., Limited, Propose to Erect Nine-Storey Building in Ottawa

The Dominion Loose Leaf Co., Limited, manufacturers of loose leaf systems, filing systems, office furniture, etc., are having plans prepared for a nine-story building in Ottawa, which will contain approximately 70,000 square feet of floor space. The company will use about 40,000 square feet and rent the balance of the building for wholesale warehouses and sample rooms. The building will probably be completed about May, 1921. With the larger floor space, output will be greatly increased.

The growth of this industry is interesting. It was established in 1910 in a building with 290 square feet of rented floor space, and a man and a boy comprised the manufacturing staff. The next year the plant was moved to premises with 1,000 feet of floor space. Again the following year it was moved to still larger quarters, and a bindery and printing plant were installed. In 1914 there was another move. Five thousand square feet of floor space were taken in a building which provided for expansion up to 20,000 square feet, and by degrees all this space was taken. The company's market has in the meantime extended to all Canada, with branches in Montreal, Toronto, Winnipeg, Vancouver, and St. John.

Buy Out Clinton Factory

Messrs. Sherlock and Manning of London Acquire Business of Doherty Piano Co.

The capital shares of the Doherty Piano Co., Clinton, have recently been purchased by Messrs. J. F. Sherlock and W. N. Manning, members of the Sherlock-Manning Piano & Organ Co., London. It is not proposed to amalgamate the two industries, but to carry them on as distinct organizations. The Clinton business will be continued under the name of Doherty Pianos, Limited, with J. F. Sherlock, president; W. N. Manning, vice-president and general manager; C. H. Ivey, secretary, and N. C. Allen, treasurer. The head office will be in London.

The capacity of the Clinton plant is 2,500 pianos per year. They have been making about 1,500, and it is hoped this year to increase the output to 2,000. The capacity of the London plant is 1,500 pianos per year, and it is hoped to reach this capacity this year. This expectation depends in both cases on getting the necessary help. Two distinct lines of pianos will be made. In the London plant the full output will be the high-grade Sherlock-Manning piano. The Clinton plant will continue to turn out the Doherty and Clinton pianos, which are first-class commercial grades. The company hope through this plant to be able to look after the export demand.

Oddly enough, both Messrs. Sherlock and Manning were originally connected with the Doherty Company, but left its employ in 1902 to organize the Sherlock-Manning Co.

New Lines and Equipment

Plant of Reynolds, Moore & Bentz, Limited, Winnipeg, is Being Speeded Up

The name of the Dyson Co., Limited, manufacturers of "Red Cross" pickles and vinegars, etc., Winnipeg, is being changed to Reynolds, Moore & Bentz, Limited. This company has experienced rapid growth during the past four or five years, and it became necessary to expand. Under the circumstances Mr. D. J. Dyson, the founder and president, offered to dispose of his interest to Mr. E. B. Reynolds, the managing director, and his associates, and this was promptly purchased. Reorganization, involving an increase of capital, was undertaken. Mr. Reynolds became vice-president and managing director; Mr. Moore, president, though not actively associated with the business; and Mr. Charles Bentz, a chemist of high reputation in the west, superintendent of the plant. Some new kindred lines are being added and new equipment is being installed. The product is being marketed from Montreal to Vancouver, and volume is only controlled by capacity to produce.

Reopening No. 1 Plant

Smith's Falls Malleable Castings Co., Limited, Find It Necessary to Extend Operations

The Smith's Falls Malleable Castings Co., Limited, are completely remodelling and re-equipping their No. 1 plant, which has been closed down for the past six years, and will shortly resume operations in it. This plant is situated on a tract of 3¼ acres, fronting the Rideau River, and contains 60,000 square feet of floor space.

The company have in the interval been running their No. 2 plant, which is a much smaller proposition, but, owing to great expansion in business, have found it necessary to re-open the larger plant. They are manufacturers of all lines of refined air furnace castings, making a specialty of railway castings. Recently they have accepted a very considerable tonnage for United States export, both in automobile and railway castings, and the capacity of No. 2 plant has been exceeded.

In their No. 2 plant they are employing approximately 100 hands. With No. 1 plant also in operation they will have 300 hands. The capacity will be increased from 2,000 to 8,000 tons.

Will Enlarge Plant

Canadian Mead-Morrison Co., Limited, to Extend Capacity of their Works at Welland

Further information about the plans of the Canadian Mead-Morrison Co., Limited, who recently bought out the business of M. Beatty & Sons, Limited, at Welland, is contained in a bulletin issued by the company on February 7:—

"Steps have already been taken to enlarge and improve the Welland plant and the new company will manufacture the extensive line of Mead-Morrison products, as well as the

Beatty line of dredges, derricks, hoists, pumps, etc. The new company has acquired from the United States company the rights to use their engineering data, plans, patents and past and future development work. This enables the Canadian company to start under the most favorable auspices. In addition to covering the Dominion of Canada, the Canadian company will also manufacture for export to the British possessions.

"The new company will have a strong local board of directors and its general officers will be Messrs. W. S. Martin, managing director; D. W. Coe, general sales manager; J. R. Story, chief engineer, and J. A. Johnson, secretary. The general sales offices are located in the Guarantee Building, 285 Beaver Hall Hill, Montreal.

Get Site in Brantford

S. C. Johnson & Son, Racine, Wis., Prepare Plans for Canadian Branch Plant

S. C. Johnson & Son, Racine, Wisconsin, manufacturers of Johnson's prepared wax and auto products, have purchased a desirable factory location, an acre and three-quarters in extent, in Brantford, and will build a Canadian plant on this site. As the company have not yet completed plans for the plant, they are unable to give any definite information about its size or character as yet. They will manufacture the following Johnson products: Prepared wax (paste and liquid), powdered wax, carbon remover, radiator cement, wood dye, perfectone enamel, paste wood filler, crack filler, etc. They state that they have opened an account with the Bank of Montreal, Brantford, and are absorbing the exchange on all Canadian business.

Instal Large Machine

Alberta Clay Products Co., Limited, of Medicine Hat, Prepare for Greater Output

The Alberta Clay Products Co., Limited, Medicine Hat, are installing a large Fate machine for the manufacture of building tile, drain tile, etc. The machine is one that they have had on hand for several years, but have never used. They hope, if conditions warrant, to be using it during the coming summer. They had also in mind some other improvements, but doubt very much whether they will go ahead with them, as there are indications of a labor shortage. With present machinery and equipment, they can largely increase output. So far as the business outlook is concerned, they report that indications could not be better.

New Manufacturing Stationers

Hay Stationery Co., of London, launch out into New Line of Business

The Hay Stationery Co., London, have recently withdrawn from the retail stationery business and are now operating a wholesale manufacturing stationery business under the name of Hay Stationery Co., Limited. In their manufacturing plant they do printing, ruling, embossing and manufacture binders, ledgers, snap-shot albums, ring books and loose leaf goods of all kinds. They occupy a warehouse, 28 x 135, with four storeys and basement. Two floors are used for manufacturing purposes, one for show and shipping rooms, one for office and storage and the basement for storage.

To Make Oxygen

Dominion Oxygen Co., Limited Formed and Will Build Five Large Plants

Dominion Oxygen Co., Limited, have been incorporated, with power to manufacture and sell oxygen, nitrogen, argon, and all other gases. The company will proceed at once with the erection of five large oxygen plants in the principal industrial centres of Canada, together with a large number of warehouses and service stations. Officers of the company are: B. O'Shea, president; Leighton McCarthy, vice-president; E. S. Whitney, vice-president; Silas Wiley, treasurer, and J. R. Knapp, secretary. Dominion Oxygen Co., Limited, are a subsidiary of the Union Carbide and Carbon Corpora-



Sunshine and fresh air are plentiful in this fine, airy workroom, where made-in-Canada shirts are being produced.

Photo by courtesy of Williams, Greene & Rome Co., Ltd.

tion, who control thirty-six distinct companies throughout the United States and Canada. The principal product will be oxygen for use in the oxy-acetylene process of welding and cutting metal.

In New Quarters

Sherer-Gillett Co., Limited, Have Recently Made Change in Location

The Sherer-Gillett Co., Limited, manufacturers of sanitary counters, Guelph, whose plant on the York Road was taken over by the Board of Trade for the Moncrief Furnace & Mfg. Co., are now located on Suffolk Street. Their new premises will give them considerably more space, and it is their intention to build up the capacity of the plant as rapidly as possible. When they are able to get sufficient machinery and men to equip it, they will begin to think about enlarging it. They anticipate rapid growth in their business.

In Larger Plant

Canadian I.T.S. Rubber Co., Limited, Have Now Doubled Their Previous Capacity

The Canadian I.T.S. Rubber Co., Limited have recently moved into their new plant at 26-32 Alpine Avenue, West Toronto. The company, who are associated with the I.T.S. Rubber Co. of Illyria, Ohio, began operations in October, 1918, and have made such progress that a larger plant was needed. Their new premises give them double the capacity of their original plant. The company's product is confined to I.T.S. rubber heels.

Start New Industry

Tube Co., of Canada, Limited, Formed to Manufacture Tubing for Bicycles, Bedsteads, etc.

Hitherto the tubing used in the manufacture of bicycles, bedsteads, implements, automobiles, etc., has been imported from the United States, but now a Canadian supply will shortly be available. The Tube Company of Canada, Limited, have been incorporated and are fitting up a plant at 233 Dufferin Street, which they hope to have producing this month. They will make from 3-8-inch to 2-inch, 14 to 22 gauge, tubing by automatic oxy-acetylene and electric welding processes, and hope to have an initial output of from 20,000 to 30,000 feet per day. Their mill will have the latest improved machinery and will be one of the most up-to-date in America. Already they have received all sorts of encouragement in the way of orders. H. W. Carter, of the Carter Welding Company, is president; P. Sorley, secretary-treasurer, and J. F. Lawson, vice-president and plant manager. Mr. Lawson was formerly with the Pedlar people, while Messrs. Carter and Sorley are pioneers of oxy-acetylene welding in Canada.

Rubber Mill Machinery

Canadian Ingersoll-Rand Co., Limited, Have Arranged to Manufacture New Lines

Arrangements have recently been concluded between the Wellman-Seaver-Morgan Company, of Cleveland and Akron, Ohio, and the Canadian Ingersoll-Rand Company, Limited, whereby the latter firm are now making and selling in Canada the Wellman-Seaver-Morgan line of rubber mill machinery. The latter comprises crackers, washers, mixing and warming mills, grooved rolls, refiners, calenders, reduction gears, fabric driers, vulcanizing presses, tire rimming and applying presses, tubing machines, accumulators, high pressure pumps, etc. The Canadian Ingersoll-Rand Company, Limited, will also take up the manufacture in Canada of Wellman-Seaver-Morgan hydraulic turbines, and a department for this work is now being organized.

The Canadian Ingersoll-Rand Company have also been appointed Canadian agents for, and manufacturers of, the Ryther and Pringle line of wood preparing machinery, for use in ground wood and chemical fibre mills, consisting of slashers, swing saws, kickers, loaders, log hauls, splitters, chip screens, shredders, etc., including the Barienger braking device for lowering heavily loaded sleighs or other vehicles down steep slopes; and will also manufacture and sell the Bird Machine Company's pulp and paper mill specialties, comprising Bird inward flow, rotary screens, Walpole screens, beating attachments and save-alls.

The company are adding some machine tool equipment in connection with the turbine department, and have a man in England at present inspecting the machines which they are having built there for this department.

Woodstock Plant Expands

Standard Tube & Fence Co., Limited will Make New Line of Welded Tubing

Standard Tube & Fence Co., Limited, of Woodstock, Ontario, have acquired the Canadian patents of Marshall B. Lloyd, covering acetylene and electric welded tubing, and have formed a close working arrangement with the Standard Parts Company of Cleveland, Ohio, to manufacture many of the latter's line of welded products. The Standard Tube Company's product has heretofore been confined to close joint tubing, but, with the purchase of the Lloyd's patents, will now be in a position to supply welded tubing required by the automobile, bicycle, bedstead, and other trades. Extensive additions to the plant in Woodstock are contemplated for this spring. Meanwhile, equipment is being installed in its present buildings, and the company expects to be ready in a few weeks to deliver the first welded tubing of this kind made in Canada.

(*Continued on page* 136)

Home Buying Advocated

"I have gone carefully through the January number of your paper and must say that I found it very interesting. It is with deep pleasure that I will again urge our employees to buy everything they possibly can in Canada. In fact, these are the instructions that I have given to any industry or corporation in which I am interested, as I am convinced that the only way to put our finances back on a proper basis is to buy outside of Canada only what cannot possibly be made here."

—A. E. LABELLE, vice-president and managing director, St. Lawrence Flour Mills Co., Limited, Montreal.

Trade Organizations Oppose Profits Tax

Boards of Trade and other Business Bodies pass strong resolution urging the Government not to re-impose the Business Profits Tax—Many reasons given why tax should not be levied

During the past few months, numerous boards of trade, chambers of commerce, and other trade organizations throughout Canada, have passed resolutions asking for the discontinuance of the tax. The following are some of the resolutions adopted:

THE CANADIAN LUMBERMEN'S ASSOCIATION
(Quebec, February 5, 1920)

"Whereas the Business Profits Tax of 1916, and amendments thereto, have expired by effluxion; it is the judgment of this Association that this tax should not be re-enacted, as it has been proven inequitable in principle, and in opposition to individual initiative and enterprise; that this Association, however, approves of the continuance and extension of the present Income Tax, in conformity to the necessities of government to meet its incurred obligations arising out of the great war.

"That this Association calls upon its Executive to appoint a strong committee to deal with the matter as its consideration shall arise in Parliament and in Council."

MONTREAL BOARD OF TRADE
(Montreal, January 31, 1920)

"Resolved, That the Montreal Board of Trade, in annual meeting assembled, emphatically endorses recent representations of the Council of the Board, stating that, in case the Government has any idea of renewing the Business Profits War Tax, the Council is unanimously opposed to the continuance thereof, for the reason that its purpose has ceased to exist, and that, by curtailing the expansion of industrial business enterprise, said tax operates inimically to the development of this country.

"That the Business Profits War Tax was, at its inception, loyally accepted by this Board, and by the business community in general, and that the only representations made at that time by the Council were with regard to minor details, at a confidential interview with the Minister of Finance, though later on, when war requirements made necessary an increase in the tax, the Council informed the Government that it was strongly of opinion that the needed extra revenue should not, as under the law providing for that taxation, be derived from but a small section of the community, but that the taxation should apply to large classes of the population, who, under that law, entirely escape, save in a very indirect manner, contributing towards the extra revenue required;

"That this meeting, therefore, prays the Government to secure any extra revenue required by some more general method of taxation."

VANCOUVER BOARD OF TRADE
(Vancouver, January —, 1920)

"Whereas the Business Profits War Tax Act expired on December 31st, 1919;

"And whereas there appears to be a possibility that this legislation will be re-enacted at the next Session of Parliament;

"Be it resolved that the Legislation Committee of the British Columbia Division of the Canadian Manufacturers Association place themselves on record as opposed to the re-enactment of such legislation, for the following reasons:

"(1) That the Business Profits War Tax Act was introduced in the first place only as a temporary and emergency war measure.

"(2) That it checks enterprise.

"(3) That it depletes capital in many cases when most required.

"(4) That it is unfair and unjust in its incidence, but particularly to new businesses and to firms with a low basis of pre-war profits.

"(5) That it has resulted in increasing prices, right up from the raw material to the distributor.

"(6) That the withdrawal of the tax would lead to an expansion of business, a lowering of prices and an increased revenue for the Government through the operation of the Income Tax."

(The foregoing resolution has since been adopted by the individual boards in the Associated Boards of Trade of British Columbia.)

BORDER CITIES CHAMBER OF COMMERCE
(Windsor, February 19, 1920)

"Whereas the Business Profits War Tax expired on the 31st December last, unless re-enacted by legislation at the forthcoming session of Parliament; and

"Whereas it is highly undesirable that the above tax be re-enacted for the following, among other reasons:

"(*a*) Because it applies only to industries employing more than a specified amount of capital, and does not apply to similar concerns of smaller capitalization.

"(*b*) Because it applies only to industrial undertakings, and not to agricultural or professional callings.

"(*c*) Because it has rendered Canadian industrial enterprises and the Canadian industrial field unattractive to the outside capital and enterprise so essential to their fullest development. Many American concerns are now anxious to establish in this country, provided that the above tax is not re-enacted. Otherwise, they will not locate on this side.

"(*d*) Because the said tax is compelling Canadian capital to seek investment in other lands—a serious and highly undesirable circumstance.

"(*e*) Because it renders impossible the provision of proper reserve funds to meet and weather periods of depression.

"(*f*) Because it absolutely restricts the possibility of plant extension, renewal and upkeep, leaving no reasonable margin for such imperative expenditures.

"(*g*) Because it hopelessly handicaps the splendidly exceptional opportunities now so freely afforded for the material and most desirable expansion of the industrial life of this young country.

"(*h*) Because it discourages the enterprise of Canadian manufacturers, who would otherwise willingly spend money necessary to secure a good foothold in foreign markets.

"(*i*) Because it seriously discourages production at a time when the highest possible output is a matter of supreme national importance.

"(*j*) Because its operation has unquestionably involved higher prices for the consumer of manufactured articles.

"(*k*) Because, if reduced to its final analysis, the Business Profits War Tax is, in reality, a penalty imposed upon industrial efficiency and enterprise.

"Therefore, be it resolved that, for the above reasons, this Border Chamber of Commerce respectfully petitions the Honorable the Dominion Minister of Finance, that the said Business Profits War Tax be not re-enacted."

S. B. Beare, Limited, wholesale manufacturing stationers, Toronto, are erecting a four-story and basement factory and warehouse, on a lot about 30 x 120 feet, at the corner of Wolseley and Ryerson Streets. They make office stationery exclusively, and hope to develop the manufacturing end of their business very considerably.



"Here's the Heart of Our Shop"---

"Every workman here knows there is a standard of production set for the work he is on, step by step. This International Job Recorder **prints** his actual starting and stopping time—there's no chance for disputes because the machine **automatically** prints the time record."

"It gives him 'his chance' to show his worth—a strong appeal to the natural ambition of a good workman—and teaches him to concentrate upon his own work. More than that, it creates a spirit of enthusiasm and friendly rivalry, of good fellowship and a determination to do the level best, which really is **the greatest asset the Company has.**"

"But, it also unerringly detects and 'shows up' the inefficient careless worker and blocks many an ingenious method of 'covering up'."

"Our shop is headed in the right direction. There's no driving. This International Job Recorder takes the place, to a great extent, of the Foreman's supervision—cuts out the 'human element,' often the cause of hostility on the part of some of the workmen and leaves the foreman free to plan for even greater production."

What the International Job Recorder does for another shop it can do for yours. Let us send you our latest literature.

International Business Machines Company Limited

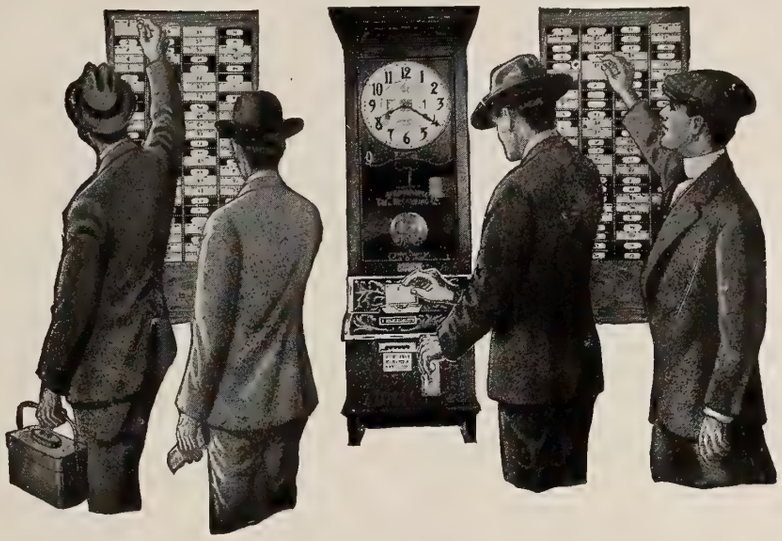
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Head Office and Factory
Campbell Ave., Toronto, Ont.

FRANK E. MUTTON,
Vice-President and General Manager

Branches in all Principal Cities

(Also makers of Hollerith Electric Tabulators and Dayton Computing Scales)



Let Us Print These Time Cards for You

We would like the opportunity to prove to our customers that it will be really a great economy to use only Time Cards furnished by us.

Our cards are made from carefully selected paper, made especially for this work. Other paper stocks are apt to cause an accumulation of fluff or lint in the printing mechanism which hinders the Recorder in its work.

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PRODUCERS OF

Nelson Island Grey Granite

The Standard Granite of the Pacific Coast.

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PRICE 100 AND INTEREST WITH BONUS OF 20% IN STOCK

The new Kraft Pulp Mill is now nearing completion.

We have a limited supply of 1927, 1928 and 1929 bonds available.

For further information write or wire

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Board of Customs Decisions

Various Rulings Made as to the Duty Applicable on a Number of Commodities

Delphos Printing Press, model B, per illustration, declared to be dutiable under tariff item 442, at the rate of 10 per cent., plus the war tariff of 7½ per cent.

Hat bands in the piece, imported by hat manufacturers for use in the manufacture of hats, declared to be entitled to entry under tariff item 638 (a)—free of duty.

Drawing pins, push pins, or thumb tacks, per general line of samples, of brass or steel, or with glass heads, declared to be dutiable under tariff item 419, at 30 per cent., plus the war tariff of 7½ per cent.

"Chemcraft" Outfit No. 2, per sample, consisting of chemicals, test tubes, etc., for use by children in performing minor chemical experiments, declared to be dutiable under tariff item 711, at the rate of 17½ per cent., plus the war tariff of 7½ per cent.

Pillow blocks or bearings, for line shafting, declared to be dutiable under tariff item 454, at the rate of 30 per cent., plus the war tariff of 7½ per cent.

Declared that shell egg cases, made of veneered wood, having sides, tops and bottoms 3-16 of an inch in thickness, and ends and middle partitions 3-8 of an inch in thickness, when imported filled with eggs, are entitled to entry under tariff item 710 (a), the war tariff of 7½ per cent. only applying, in effect from 1st December, 1919.

Departmental Rulings

Pioneer Washing Soda, per sample, from Church & Dwight of New York, ruled to be dutiable under tariff item 777, at the rate of 17½ per cent., plus the war tariff of 7½ per cent., in accordance with ruling in Appraisers' Bulletin No. 2012.

Covered wire used in the manufacture of artificial flowers, ruled to be dutiable under tariff item 407, at the rate of 30 per cent., plus the war tariff of 7½ per cent.

Extractor, used in drying fabric in weaving and dyeing operations, ruled to be dutiable under tariff item 468, at the rate of 10 per cent., plus the war tariff of 7½ per cent.

Castings partially finished, when for parts of machinery, ruled to be dutiable under tariff item 453, at the rate of 27½ per cent., plus the war tariff of 7½ per cent.

Use Norwegian Agents

An Appeal to Manufacturers Who May be Doing Business with Norway

The Association is in receipt of a letter from the Consul General of Norway at Montreal, enclosing a circular addressed to the Norwegian trading community and urging that business with Norway should be done through the medium of Norwegian agents. The communication reads:

"The Association of Norwegian Agents have complained that the sale to Norway of different articles from abroad—also from overseas—is partly effectuated through agents which are not living in Norway, but in the neighboring countries. The said Association of Norwegian Agents have expressed their dissatisfaction that the sale of goods to Norway is not made through Norwegian agents living in Norway.

"For your information, I beg to send you a few copies of appeal to the Norwegian trading community, issued by the said Agents' Association, and I should be obliged to you

YARROWS LTD.

VICTORIA, B.C., CANADA

Associated with YARROW & CO. LTD., Glasgow, Scotland

SHIPBUILDERS ***SHIP REPAIRERS*** *ENGINEERS*

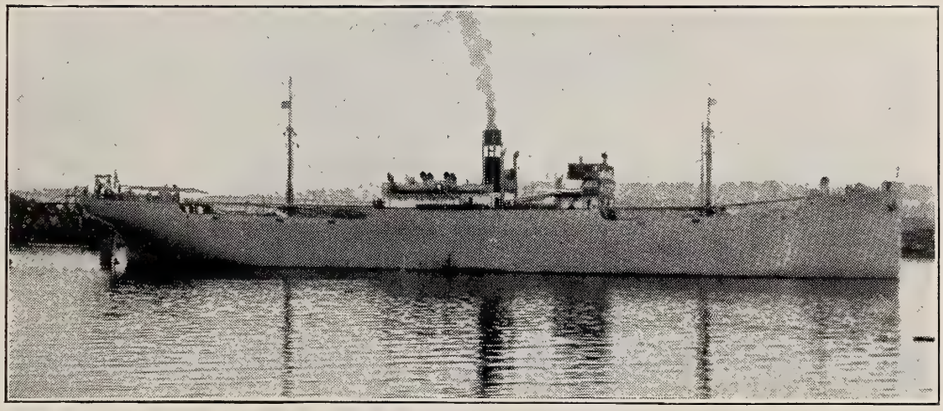
IRON AND BRASS FOUNDERS

Marine Railway—300 ft. x 52 ft., 3,000 tons D.W. capacity Graving Dock—480 ft. x 65 ft.

J. Coughlan and Sons Limited

Vancouver, British Columbia

SHIPBUILDERS



ENGINEERS

S.S. "ALASKA"
8,800 ton D.W.
The first product of our yard.

Now giving Excellent Satisfaction in European Waters

Dimensions: Length, 427 ft. Beam 54 ft. Depth 29 ft. 9 ins.
Speed 11½ knots

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Works: LONGUEUIL, QUE.

Manufacturers in Canada of

Locomotive and Car Wheel Tires

HIGH SPEED and CARBON TOOL STEEL

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TRADE-MARKS THAT PULL. There are many kinds of trade-marks, some being most attractive but have not the pulling power for business. Let us submit you a trade-mark sketch, that's bound to pull.

-MARKS

for making the appeal expressed by the agents known amongst the members of your association.

"I beg leave to add that not only to the agents themselves but also to the whole trading community in Norway would it be altogether more satisfactory if business people doing trade in Norway would try to sell goods to Norway through Norwegian agents, avoiding to let trade on Norway go through channels in other countries.

"The animosity in Norway against doing business in that way is growing stronger and the firms which really want to develop their business in Norway will certainly have advantage in considering the desirability of employing Norwegian agents, not foreign agents."

Samples Being Assembled

Commercial Samples From All Parts of the World Are Being Collected at Ottawa

Some time ago the Canadian Trade Commissioners were instructed to obtain commercial samples from the countries in which they were stationed. There was some delay in getting them owing to war conditions and difficulties in securing ship space. It was also necessary to wait some time before a suitable building could be secured at Ottawa. However, the samples are now coming to hand and photographs of them are appearing from time to time in the Weekly Bulletin of the Department of Trade and Commerce. Any manufacturer who is specially interested in a particular sample may secure a photograph of it by paying for the cost of taking the photograph.

In addition to these commercial samples, there is a department for Canadian catalogues, and manufacturers are urged to see that their publications are on fyle. It is the aim to have this department as representative of Canadian manufacturing interests as possible, so that any business men from abroad visiting Ottawa can see exactly what Canadians are manufacturing.

W. Percy Lee and Charles J. Lee have established a new industry in Owen Sound, under the name of Lees' Mattress & Cotton Products Co. They are occupying a brick building, 25 x 70 feet, two stories, and besides making mattresses will manufacture pillows, awnings and kindred lines.

Three annual scholarships for a complete four years' course leading to a degree in science in the universities of Toronto, Queen's or McGill are offered by the International Nickel Co., of Canada to minor apprentices and sons of employees in the mining and smelting division, Copper Cliff. The scholarships, which cover all expenses while attending the chosen university, are awarded on the result of competitive examinations. The first of the annual examinations was held last fall and the winners are now attending university. By the end of four years the company will be paying the expenses of twelve students continuously. So far as is known the gift is unique.

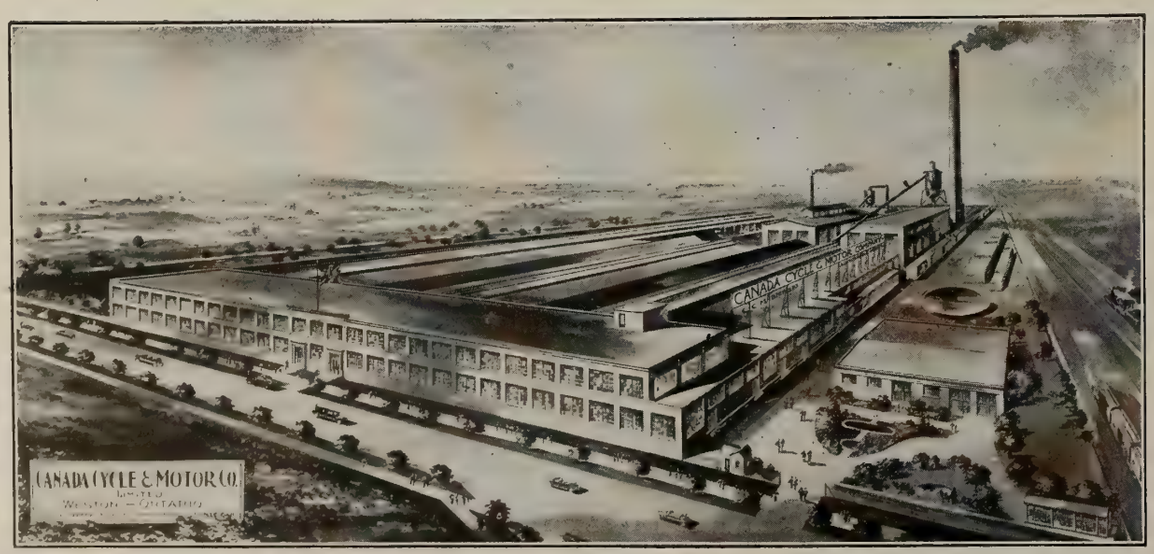
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BERNARD H. PRACK
Architect and Engineer

JOHN V. GRAY CONSTRUCTION CO. Limited
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IN 1919 WE RECEIVED A REPEAT ORDER FOR AN ADDITION OF 15,000 FEET OF FLOOR SPACE

OUR MOTTO---EFFICIENT, ECONOMICAL SERVICE

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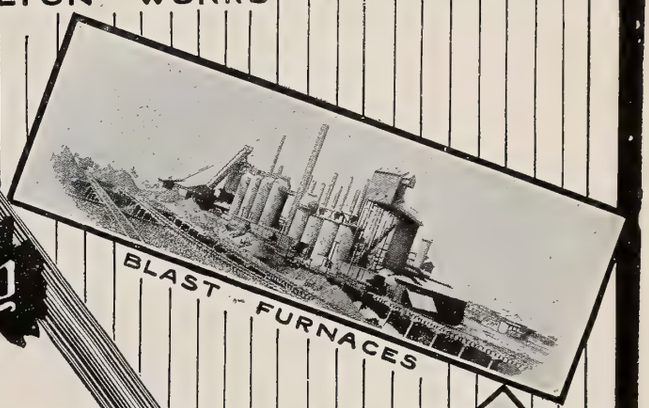
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TORONTO, CANADA



GENERAL VIEW HAMILTON WORKS
HAMILTON



BY-PRODUCT COKE OVENS



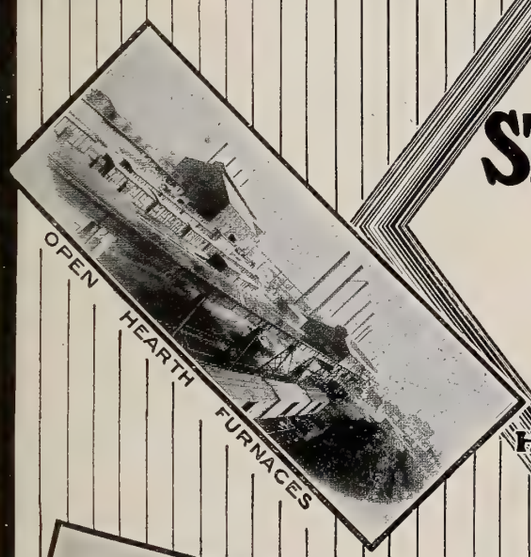
BLAST FURNACES

Quality

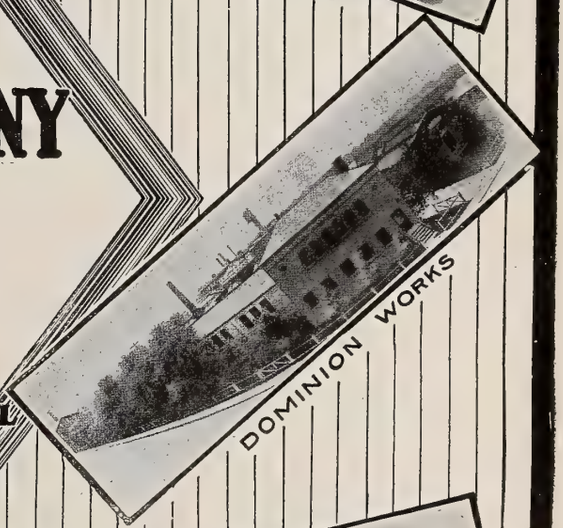
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Service



OPEN HEARTH FURNACES



DOMINION WORKS



ST. HENRY MILLS



ST. PATRICK MILLS



GENERAL VIEW OF NOTRE DAME WORKS
MONTREAL

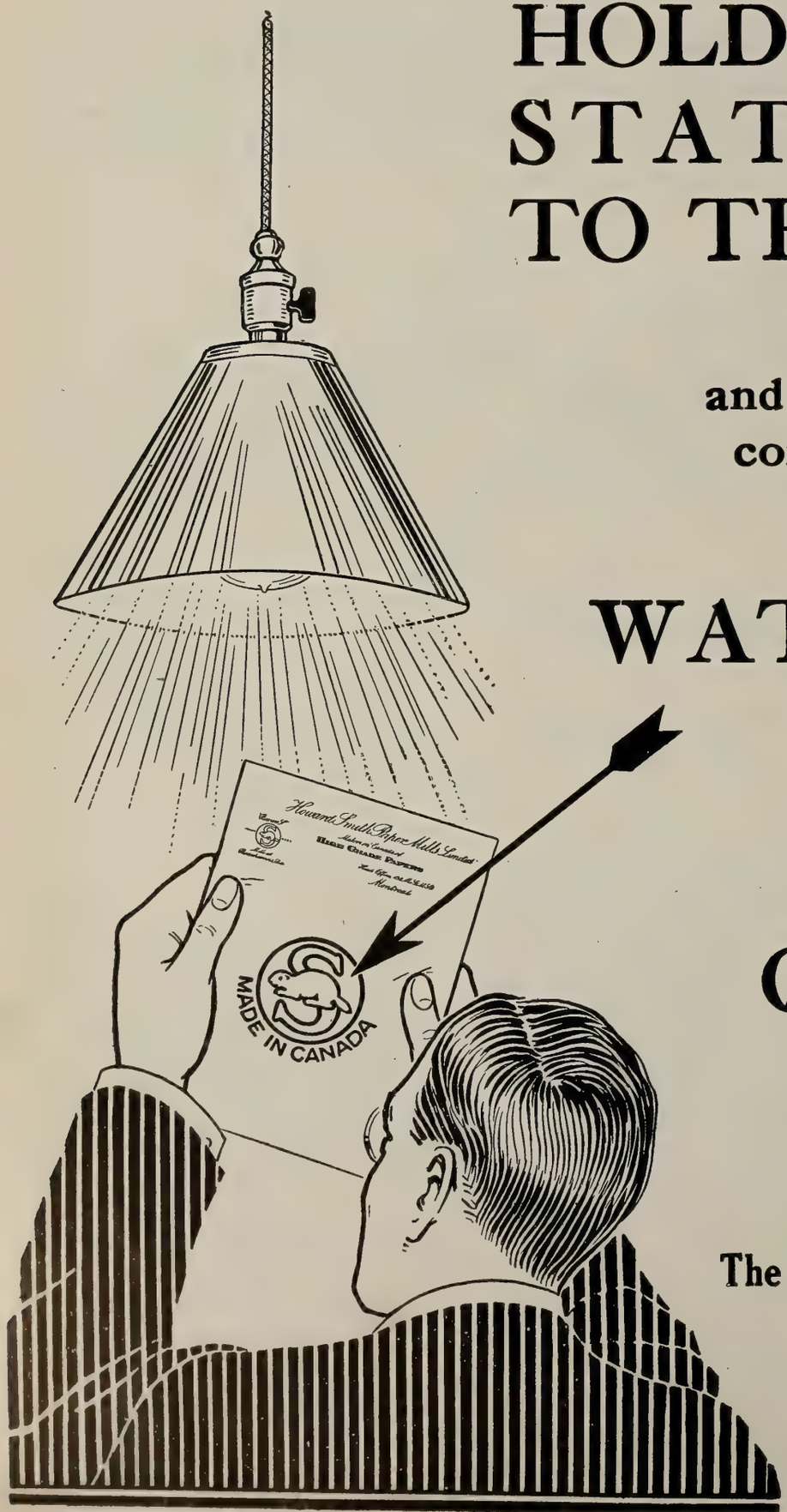
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MILLS AT

BEAUHARNOIS, QUE. and CRABTREE MILLS, QUE.

OFFICE AND FINANCE

Controlling a Company's Printing Bills

Reading the First Two Paragraphs of this Article will be to many Factory Executives like Holding up a Mirror to them

By JAMES H. SHEPPARD
(Reprinted from "Factory")

IN the spring of 1917, when the war and the draft foreshadowed a coming shortage of men, the President one day appointed a committee to investigate reports and routine with a view to cutting out reports and eliminating clerical operations wherever possible.

In the course of this investigation, the committee discovered that a tremendous variety and quantity of printed forms were being used. Waste was rampant. Almost anyone could have a form printed, and there was no check on the quantity ordered. Each department had its own store of printed matter, but it was usually in such a state of disorder that a new supply of a form would be ordered while plenty were still available but covered up.

Great Wastage Shown

Forms hastily considered and printed frequently were used only a day or two. Many were never used at all. Forms becoming obsolete were buried under new forms instead of being salvaged; in fact, no agency existed which could salvage them. All kinds of expensive fancy forms were used. Some were printed on carbon paper; some were serially numbered when this was really unnecessary; many were printed on cardboard or on an expensive grade of paper when cheap paper would do. Apparently it had never occurred to anyone that great economies could be effected in this field.

Investigation showed that many of the forms could be produced on a commonly used press with little labor—and unskilled at that—providing electrotypes were obtained. The possible saving on a number of representative forms was figured, and proved so startling that one of these special presses was purchased and installed, together with a small stitching machine and a paper shear. Near the printing room an attic full of old files was cleared out, shelving put in, and a stationery storeroom established. The storerooms for printed matter throughout the plant were next raided, obsolete forms sorted out, and good and obsolete forms carefully stacked in the new storeroom. A man in the sales department was put in charge, in addition to his other duties, as it was felt that supervision of the printing and stationery storekeeping ought to require only part of his time. This arrangement has worked very well.

At the same time that these changes were initiated, a permanent forms committee was created to reduce the cost of forms, to keep to a minimum the number of new forms used, and to co-ordinate new forms with those already in existence. The committee was given authority to decide whether a proposed form should be printed or not, and to determine in what way and of what material it should be made.

The stationery storeroom keeps a record of each form on a 5 by 8 inch card. This card shows the location of the stock on the shelving, the size and kind of material, and gives a complete record of orders, deliveries, balances, and costs. It thus tells the whole story at a glance, for it enables the committee to decide on the quantity to be re-ordered, to revise the base figure which determines when a re-order is to be placed, besides telling whether the form was made or purchased outside, from whom it has been purchased in the past, and what it cost.

When anyone desires a new form printed he accompanies his sketch with an application card. The forms committee examines the proposed form, having in mind the following questions:

1. Is the form necessary?
2. Cannot some existing form be used?
3. Does the estimated consumption justify the quantity ordered?
4. Is the proposed form properly co-ordinated with existing forms?
5. Is the proposed form properly designed as to convenience and cost?
6. What is the cheapest grade of paper that may be used?

If the proposed form is approved by the committee, bids are obtained from at least two printers, and an estimate made of the cost on the special press, and the job done wherever cheapest.

When the stock of any form falls to the base shown on the record card, which is usually one month's supply, the form is re-ordered. The re-order is passed upon by the forms committee in order that the form may be made to conform to changed conditions. When printing is done outside the plant rather than on the multigraph press, the original set-up forms a large part of the cost, so that it pays to buy a large quantity at one time. We normally order a six months' supply of a form, and in some special cases as much as a year's supply. This is advisable only if a careful investigation has been made as to the possibility of the form being changed or becoming obsolete.

Variation in Bids Surprising

The variation in the bids of several printers on the same job is often surprising, so that we always obtain quotations from at least two. The extraordinary difference between bids seems to indicate the absence of a real cost-finding system in many printing establishments.

Now as to what has been accomplished. In the first place, the company has not bought a scratch-pad of any description since the fall of 1917. Obsolete blue prints and forms, used repair orders, and the like, are cut up and padded. The result is very satisfactory, for not only is there a considerable saving in money, but the surface of the paper thus used is much better than the surface of that formerly purchased. In many cases new forms are printed on the backs of obsolete ones. This practice is particularly applicable

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Rest - - - $20,000,000
Undivided Profits, $1,812,854
Total Assets - $545,304,809

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· OF CANADA ·

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DRAFTS—Money Orders and Letters of Credit issued, available throughout the world.

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Accounts of Merchants and Manufacturers solicited.

HEAD OFFICE - TORONTO

to file cards which have been printed on a stock of such weight that the printing does not show through.

The direct saving in money has been remarkable. In 1917 the company purchased 2,050,000 forms at a cost of $21,000, or $0.0098 a form. In 1918, the first year in which the forms committee and stationery storeroom were in operation, we purchased and made ourselves 2,330,000 forms at a cost of $18,550, or only $0.0079 a form. A careful investigation shows that the average cost of commercial printing in 1918 was 33⅓ per cent. higher than in 1917, so that had we operated in 1918 in the same way as in 1917, our cost for a form would have been $0.0131, and our printing bill would have been $30,400, instead of $18,550.

This saving was effected at a cost of about $2,500, leaving a net saving of $9,450—quite a sizeable item for a plant employing only 1,300 people.

Aside from the direct financial benefit resulting from this newly-inaugurated system, the change was of a decided advantage to the business in yet another way. Under the old method, when almost anyone could have a form printed to suit his own desires, these changes frequently did not go through the proper department heads, who ought always to be familiar with every such change in department routine. And then, too, when there is looseness and waste in part of the routine of a business, it encourages like characteristics throughout the whole plant.

Penmans Limited

Despite decrease in volume of sales, trading profits showed an increase

Sales of Penmans, Limited, for 1919, amounted to $8,538,-848, a decrease of $109,534 over 1918. Net trading profits, however, amounted to $1,293,314, comparing with $1,137,171. Surplus of liquid assets over liquid liabilities has been increased by $481,897, and now amounts to $3,636,132 The reserve account and surplus amount to $4,004,269.

Montreal Cottons

Record year in the way of earnings reported by this company last year

Income of Montreal Cottons, Limited, for last year amounted to $995,039, compared with $703,096 in 1918 and $492,720 in 1917. After deducting fixed charges, taxes and a special appropriation to provide against loss due to the adverse rate of exchange, there remained a balance of $662,538. Dividends took $345,000, leaving a profit and loss balance of $317,538, which, added to the previous surplus, brought that item up to $3,089,142.

Dominion Linens

Small increase in profits recorded with general improvement in position

Profits of Dominion Linens, Limited, for 1919 amounted to $76,190, as compared with $71,142 in 1918. The company's position showed general improvement. From the previous year there had been carried forward a balance of $36,317. Dividends on preferred stock at 7 per cent. were paid, amounting to $24,500. The sum of $5,000 was written off for deferred expenses, and the same for good-will, both unchanged from the previous year. A reserve for depreciation on plant and equipment of $19,110 was charged, a few hundred dollars higher than in the previous year, and the

reserve for $3,302 for depreciation on buildings. Provision of $5,000 was allowed for depreciation of inventories, arising out of fluctuations due to war conditions, as compared with $10,000 for the same purpose a year ago. The balance at credit of profit and loss at the end of the year was $49,594, as compared with $36,317.

Wm. A. Rogers Limited

Past Year Has Been Much the Best in the History of the Company, Profits Being Large

The William A. Rogers, Limited, experienced a most successful year in 1919, earning profits of $526,382, compared with a loss of $5,208 in 1918. The result indicates the rapid manner in which the silverware industry has recovered from its war-time handicaps. The directors will resume on April 1 the payment of regular quarterly dividends on the preferred shares, and hope during the year to make up part of the 14 per cent. arrears on this stock. Total assets at the end of the year amounted to $4,583,436, as compared with $4,239,230 at the end of the previous year.

Asbestos Corporation

Company Experienced Prosperous Year with Large Increase in Net Profits

Profits of the Asbestos Corporation of Canada for the past year amounted to $1,473,752, an increase of approximately $300,000 over 1918. Including the dividend on the common stock, which was commenced at the end of 1918, and dividend on preferred stock with bonuses, the year's distribution to shareholders amounted to $530,000, as against $190,000 in 1918. The surplus account increased from $1,205,819 to $1,568,391. The working capital shows a further material improvement within the year, rising by more than $600,000 to $2,991,728.

Woods Mfg. Co.

Profits for 1919 Were About Two Hundred Thousand Less Than for 1918

Profits of Woods Manufacturing, Limited, for 1919 amounted to $639,812, comparing with $824,201 in 1918 and $770,816 in 1917. However, deductions for interest, donations and taxes were considerably less, so that balance for dividends was $608.662 against $602,000 in 1918. After paying all dividends, surplus amounted to $294,175, compared with $287,900 the previous year. The excess of current assets, including inventories, over current liabilities at the end of the year was $2,164,239, an increase of approximately $300,000.

Gunns Limited

Stock Issue of this Company Has Been Made by the National City Company

One of the latest industrial flotations in Canada has been $1,500,000 seven per cent. cumulative first preferred and participating stock of Gunns, Limited, the Toronto packing house company. The business of the company was established in 1873, being incorporated in 1902. During 1919 interests allied with Morris & Co., Chicago, purchased a

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This Bank offers peculiar advantages in handling Foreign Exchange and issuing Letters of Credit. With Branches in every part of Canada, as well as in several important cities elsewhere, and with correspondents of high standing in all parts of the world, it is able to place many advantages at your disposal.

THE CANADIAN BANK OF COMMERCE

PAID-UP CAPITAL - $15,000,000
RESERVE FUND - $15,000,000

The Merchants Bank of Canada

Head Office, MONTREAL Established 1864

Paid-up Capital	$ 7,000,000
Reserve Funds	7,574,043
Total Deposits (Nov. 30, 1919)	167,000,000
Total Assets (Nov. 30, 1919)	200,000,000

President: Sir H. Montagu Allan, C.V.O.
Vice-President: K. W. Blackwell
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A decision to make Earnscliffe in a variety of tints came as a result of continued success and increase in sales of Earnscliffe White, Azure and Buff, coupled with numerous requests by its friends, for other tints.
To introduce the tints to consumers we have prepared an exceptionally fine booklet showing samples illustrated with printed and lithographed letterheads. One of these booklets will be very useful to anyone interested in commercial stationery. A request on your business stationery will bring one to you.

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substantial but not controlling interest in the company. The company owns a slaughtering and meat-packing plant in Toronto and conducts a produce business, directly or through subsidiary companies, in Toronto, Montreal, Harriston, Walkerton, Wingham, and St. John, N.B. The company is one of the largest packers in Canada, its products consisting mainly of diversified meat and produce foods. Proceeds of the present issue are to be used solely for additional working capital. The stock is offered at 97.50 per share, yielding 7.18 per cent.

F. N. Burt Co.

Profits for 1919 Show Large Gain Over Figures for Preceding Year

Profits of the F. N. Burt Co., Limited, for 1919 amounted to $795,714, an increase of $325,000 over the previous year. In addition, there have been important extensions to plants, which have been paid for out of profits, while liabilities have been reduced and liquid assets increased. The profit and loss balance brought forward from 1918 amounted to $376,783. From this was deducted federal taxes on 1918 earnings, paid in 1919, amounting to $59,415, leaving $317,368. Adding 1919 profits, $1,113,083 was left for distribution. There was transferred to realty and plant reserve, $178,377; paid in dividends, $198,548, and written off patents, $23,112; leaving a balance carried forward of $713,044. Altogether, the year was an exceedingly favorable one, and the outlook is good.

Provincial Paper Mills

Substantial Gain in Profits Recorded by this Company During Past Year

Net profits of the Provincial Paper Mills Co., Limited, for 1919 amounted to $420,573, an increase of over $16,000. Sales, which were the largest in the history of the company, amounted to $3,838,415. The president, I. H. Weldon, states that market conditions indicate a strong demand for the coming year. The year's surplus was $133,408, and this, with the previous balance of $852,406, brings the profit and loss balance up to $852,406.

Canada Cement

Company's Net Earnings for 1919 Were Considerably Less than those for 1918

Net earnings of the Canada Cement Co. for 1919 amounted to $766,176, comparing with $1,060,644 the previous year. After paying 6 per cent. dividend on the common stock and providing for reserves, the surplus account showed a deficit of $1,252,786. This, in conjunction with the previous balance of $2,677,643, left a surplus balance of $1,424,857. Working capital amounted to $6,023,902, which compares with $5,007,913 the preceding year.

In his address to shareholders, William C. Edwards, as President, said: "The demand for cement during the past year was better than in 1918, but was far below normal, and the results of the year's business are not gratifying.

"Referring to the financial position of your company, after providing for interest on bonds, dividends on preferred and common stock and ordinary reserves, the surplus account has been reduced by $1,252,786. This is accounted for by the transferring of $1,011,119 to reserve for fire in-



Governor Harding

Federal Reserve Board

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UNION BANK OF CANADA

HEAD OFFICE : : WINNIPEG

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THE ROYAL BANK OF CANADA

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Total Assets Over	500,000,000

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Everything for the Bathroom.

Write for Catalogue C and Price List.

surance, and by drawing on the surplus to the extent of $241,666 for depreciation. We are pleased, however, that the company's financial position is strong, current assets, including investments and call loans, amounting to 7.74 times the current liabilities."

International Nickel

Nine-Month Statement Shows Very Heavy Decrease in Earnings and Net Profits

The effects of cessation of war business are reflected in the latest statement of the International Nickel Co., which shows that for the nine months ended December 31st, 1919, net profits were $1,799,957, as compared with $5,072,458 for the corresponding period of 1918. Earnings, before deductions of administration and general expenses, taxes and depreciation, amounted to $4,326,897, a decrease of $6,600,000. Total assets at the end of 1919 were $63,140,851, as compared with $66,909,166 at the end of 1918.

Canada Foundries

Total Income for the Year Showed Considerable Drop From That of Previous Year

The financial statement presented at the annual meeting of Canada Foundries & Forgings Co., held at Brockville on February 24, showed an operating profit of $149,623, which, with income from investments and gain on sale of Victory bonds, made a total income of $242,062. This compared with $612,117 a year ago. The net surplus was $169,915. The balance of surplus brought forward was $1,467,622. Dividends of 7 per cent. on preferred and 12 per cent. on common were paid, bringing the balance down to $1,285,222.

A change in the directorate occurred, the following being elected:—T. J. Dillon, Welland; J. H. A. Briggs, Brockville; J. T. Dillon, Buffalo; J. A. Mackay, Charles W. Maclean, W. M. Weir, Colin O. Cameron, Stephen J. L. E. Huray, Montreal; Lieutenant-Colonel Monsarrat, Ottawa; Lawrence Chamberlain, New York; Henry Bertram, Dundas.

When the Directors met these officials were unanimously named:—President and General Manager, T. J. Dillon; Vice-President, Hon. George P. Graham; Secretary-Treasurer, J. H. A. Briggs; Assistant Secretary-Treasurer, F. C. Hesch; Executive;, the President, Vice-President, W. M. Weir, J. T. Dillon.

A new stock issue is announced by the Canadian Salt Company, Limited, whose works are at Windsor, Ont., with executive office at Montreal. At the annual meeting of the shareholders, to be held on March 10, a by-law will be submitted for ratification, increasing the capital stock of the company from $800,000 to $1,500,000 by the creation of 7,000 shares of $100 each.

Penman, Limited, have declared a bonus of 2 per cent. on common shares, payable February 28, to shareholders of February 16. The regular quarterly dividend of 2 per cent. was also declared, payable May 15, to shareholders of May 5. A dividend of 1½ per cent. has also been declared on the preferred stock, payable April 30 to shareholders of April 21.

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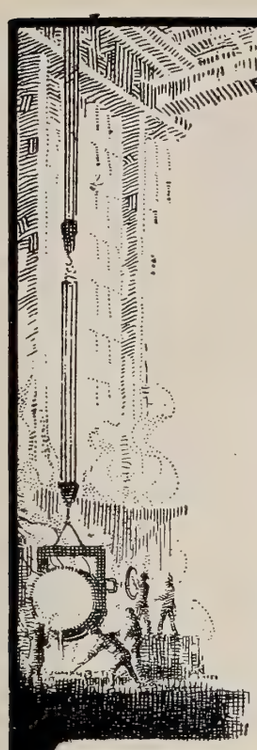
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Works Councils in the United States

Concluded from Page 67

or other plant executive, before a matter is referred to the Works Council for consideration. In a number of cases provision also is made for an opportunity on the part of the company officials to use their good offices to effect a settlement in case the Works Council fails to reach an agreement.

"A few of the plans provided merely for the negotiation of differences between an employee's committee and certain designated officials of the company. In these cases no detailed procedure is prescribed. But most Works Council plans call for joint action of formally constituted representatives of the employees and of the management in the settlement of matters. Such action may be taken by a joint council comprising in its membership representatives of both parties, by an employees' committee meeting in joint session with a committee representing the management, or by a special sub-committee of the Works Council made up of representatives of both employer and employees.

Majority Vote Is Decisive

"Under a majority of the plans a simple majority vote of the combined representatives of employees and management is decisive. In the case of the 'Bridgeport Plan,' however, a majority of two is required. In only four plans is a unanimous vote prescribed.

"Ultimate settlement of matters failing of adjustment by the Works Council is provided for by compulsory arbitration in only a small minority of establishments. A smaller number of plans—effective, however, in over twice as many establishments—provide for final submission to arbitration if the parties at the time agree thereto. Ultimate power of settlement rests with officials or the board of directors of the company in only a few cases. The plans in effect in a majority of the establishments make no provision for further reference after the Works Council has failed to reach an agreement. Inasmuch as in the experience of Works Councils thus far matters have seldom reached a deadlock, the means provided for the final determination of questions have been important chiefly from the standpoint of fixing the authority possessed by the individual Works Council.

"Relatively few plans qualify the right of employees to vote for members of the Works Council, other than that they must be in the employ of the company at the time of the election. A majority of the plans, however, require that employees must have certain qualifications if they are to serve as employees' representatives. The requirement most often prescribed is that they must have been in the employ of the company for a fixed period, generally one year, preceding the election. In many cases American citizenship and the attainment of the age of 21 also are stipulated. The usual term of office is one year.

Election by Double Process

"Elections most often are by the double process of nomination and election, as distinguished from direct election. However, experience with the latter method, in the Bridgeport establishments in particular, points to its superiority in certain respects over the nomination method. A simple notice is posted in the shop stating the date and other particulars with respect to eligibility, manner of voting, etc. In the interval before the election the employees have an opportunity to talk over among themselves possible candidates, while the formality, loss of time, and other disadvantages accompanying the circulation of petitions or the holding of meetings for purposes of nomination are avoided.

"In order that a large and representative vote may be cast, it has been found desirable to hold elections on the plant premises and during work hours or immediately thereafter. Attempts to conduct elections away from the plant and outside of work hours, as in the evening, have not met with success.

"It is important that the management refrain from all participation in the conduct of elections, so as to avoid any appearance of attempting to influence the results. In this connection it is sometimes provided that foremen and other representatives of the management shall be absent from the place of voting while the balloting is in progress.

"In a majority of plans provision is made for meetings of the Works Councils at regular intervals, with added provision for special meetings. The Works Council, meeting regularly, ordinarily tends to do more constructive work than if it meets only upon occasion. The regular meetings furnish constant opportunities for the interchange of ideas and experiences. It is desirable, moreover, to have matters of vital interest to the employees constantly before the Councils, if the meetings are not to become perfunctory; again, the members have less incentive to "make" business. There is no uniform practice with respect to meeting during or after work hours or on the company's or the employees' time.

"Special provisions for protection of employees against discrimination by reason of union membership, and of representatives against discrimination by reason of their activities as Council members, for the referendum and recall, for the compensation of employees' representatives and for the creation of a department of industrial relations are included in some plans.

"Experience with plans of employee representation has not as yet been sufficiently broad to establish finally the comparative merits of many specific features of organization. It is clear, however, that no one form of organization is applicable to all establishments alike. Differences in the size of the establishment, the personnel of the management, the character of the employees, and other particulars, require variations in the plan of organization. In general, it may be said, however, that Works Councils succeed best if they are (1) comprehensive in scope; (2) sufficiently flexible to permit of adaptation and development; (3) simple and informal in structure.

Details Developed in Operation

"The Works Council, being a human institution, cannot be so planned as to meet all conditions and contingencies. Hence, even after all possible care and foresight has been exercised, many details of organization still remain to be developed in operation.

"With the exception of the small group of "limited" plans, all Works Councils deal with the terms of employment and serve as "bargaining committees" to the extent that they concern themselves with such subjects as hours of work, wages, and piece rates. Most "National War Labor Board Committees," as well as three-fourths of the employers' plans, deal with these subjects. However, they are active also with respect to social and recreational undertakings and living and working conditions. The Works Councils voluntarily instituted by employers have laid particular emphasis upon these other activities.

"In a considerable number of cases, Works Councils concern themselves with shop discipline, or with hiring, promotion and discharge, but mainly in the capacity of review and recommendation only.

"The participation of Works Councils in the improvement of industrial methods and in general management functions has been relatively infrequent.

"Works Councils have met with varying degrees of success. Of the Councils regarding which experience is reported in this study, a small minority either lapsed completely or had only a perfunctory existence. With but few

A Neglected Duty

(From the Dry Goods Economist)

Communism is basically unsound. But where the alien sees, he believes, especially if he can see it in cold type. Our duty, and it is a duty we have sadly neglected, should be to educate him that he may readily discern the truth from the falsehood given him in the syndicalist publications.

exceptions these were committees established upon the initiative of the National War Labor Board or the Shipbuilding Labor Adjustment Board. However, by far the majority of Works Councils have been active, either to a limited or considerable extent.

"In most cases, Works Councils are reported as having produced favorable results, although in a number of instances, chiefly of "National War Labor Board Committees," they have apparently accomplished little or no good. In a few cases their introduction has tended even to aggravate labor difficulties. But on the whole they appear to have produced some benefit.

Increase in Good Will Apparent

"The beneficial result most frequently reported is an increase in good will and in co-operative spirit between employer and employees. A considerable number of employers reported specifically that labor difficulties were reduced because of the introduction of Works Councils. In several instances the Works Council was the means whereby strikes were prevented in individual establishments when strikes were general in the same industry or locality. It is true that labor disturbances have at times occurred in establishments where Works Councils have been introduced. Against this unsatisfactory experience, however, are to be placed the statements of the managements of several of these establishments that, in their judgment, the Works Council had modified the severity of the disturbance, and that they still regarded the Councils as of decided value.

"In several cases the Works Council was reported as influential in reducing labor turnover. Difficult questions involved in the execution of awards of the National War Labor Board often have been satisfactorily handled by Works Councils.

"With respect to productive efficiency, evidences of positive benefit resulting from Works Councils are comparatively few, although in some establishments marked increases in output were attributed, in part, at least, to the existence of such organizations. In a few instances efforts have been made by Works Councils to reduce absenteeism and tardiness, and to develop improved working methods, but the sum total of accomplishment along these lines is small.

"Employers generally reported that a relatively high hype of employee has been elected to membership in Works Councils. Further evidence of this is found in the decided preference shown for men long in the service of the establishment as Council members. Instances of radicalism or unreasonableness on the part of employee members of Works Councils are conspicuously few.

"Against the benefits thus reported from the introduction of Works Councils must be placed certain other considerations. Obviously the Works Council adds to the cumbersomeness of shop management. In place of the prompt, direct decision of the foreman, or other plant executive, committee hearings, protracted negotiation, and long discussion may be required to bring questions to a final conclusion. By reason of its very nature the Works Council does not permit of the same expeditious settlement of matters that is possible where the authority of the plant executives is arbitrary and final. This apparent drawback of the Works Council may prove an advantage if it serves to prevent the abuses frequently accompanying the exercise of arbitrary power. Furthermore, by providing a regular channel for the advance of determination of employment questions, the Works Council may be instrumental in bringing about a settlement of disputed matters before they develop into strike demands.

Members Feel Must be Active

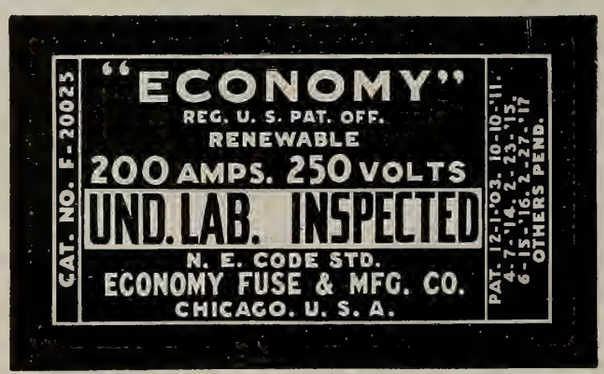
"The introduction of the Works Council also generally results, at least for a time, in an increase in the number of matters which come up for consideration. Members of the Councils, feeling that their position requires them to be active, encourage employees to bring up matters for adjustment, and the employees themselves, stimulated by the ease with which complaints can be registered, are likely to ask for consideration of trivial claims. Experience seems to indicate, however, that this disposition tends to decrease as the Works Councils become more firmly established.



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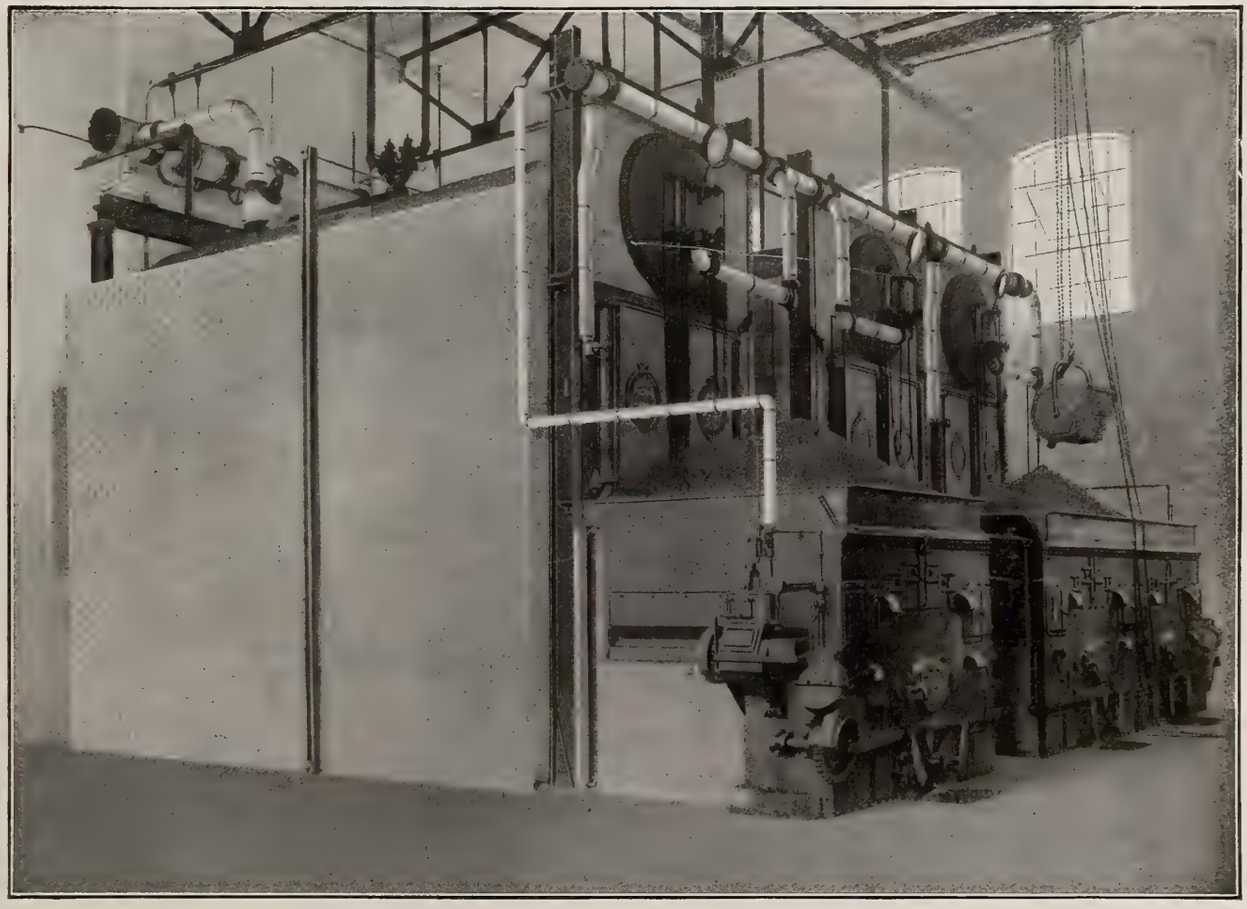
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"Experience has demonstrated that the self-same form of Works Council may succeed in one establishment and in another fail of its purpose. The explanation often is to be found in differences in the character of the management, of the shop environment, or of the workers of the two establishments.

"A feeling of mutual confidence between employer and employees in an establishment has been found essential to the successful introduction of plans of employee representation. So long as suspicion exists, it will tend to prevent the satisfactory operation of a Works Council.

"The personality of the manager of the plant or of the executive most directly concerned in the operation of the plan may make all the difference between success and failure. He must be in thorough accord with the idea of the Works Council; he must possess the confidence of his employees and must be sympathetic and tactful in dealing with them. Where the executive is lacking in these qualities, the formation of a Works Council may have the effect of actually accentuating friction and labor difficulties.

"On the other hand, a Works Council may be inadvisable in an establishment in which the employer, through personal contact and a policy of fair dealing, successfully maintains amicable relations with his employees. The employees themselves, being able satisfactorily to adjust claims and secure redress of grievances through personal negotiation with the employer, may see no advantage in a Works Council. This is especially likely to be the case in the small establishment of which the owner is the active head, and particularly if it be located in a small community. It is to be noted, however, that some Works Councils are in active existence in establishments which have relatively few employees and in plants located in small communities.

Character of Workers a Factor

"Again, the introduction of a comprehensive plan of employee representation may be inadvisable in an establishment where the workers are relatively unintelligent and unaccustomed to organization. To place suddenly in the hands of workers unused to organized action a more or less elaborate piece of governmental machinery may have either of two consequences: (1) The employees, failing to comprehend its meaning and workings, may take little active interest in it, in which case it will lapse; or (2) the employees, suddenly feeling their power, and being untrained to its intelligent exercise, may abuse it. Either of these results is particularly probable in an establishment where a large proportion of the workers are unskilled or are non-English speaking.

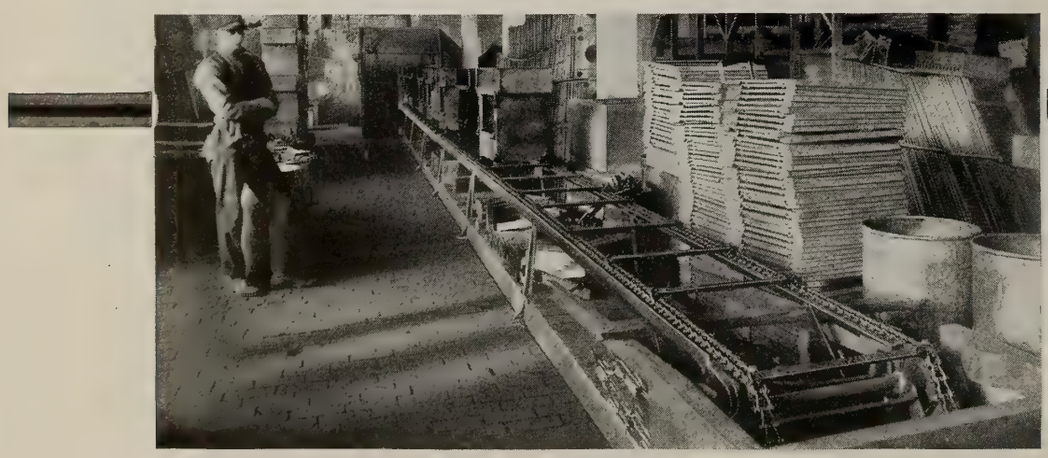
"Where conditions such as these obtain, a programme of intelligently directed industrial betterment work, designed to raise the intelligence of the employees, to better their standards of living, to give them a knowledge of English, to acquaint them with American institutions and to train them in methods of organization, may be preferable, for the time being at least, to the introduction of a Works Council.

May Leave Unfavorable Consequences

"An attempt to replace active union shop committees by a Works Council is almost certain to have unfavorable consequences, unless the workers acquiesce in the change. In an establishment which is highly unionized, the union shop committees represent a large share of the employees. In a closed union shop they obviously represent all of the employees. In those cases where, under a written agreement between the employer and the union, the union committees are recognized as the regular means of negotiation, they virtually function as Works Councils. So long as the employees prefer to act through such committees, a Works Council set up to supersede them might not only fail to receive their support but would probably encounter their antagonism.

"The success of a Works Council also depends in large measure upon the manner in which it is introduced. Such a body set up abruptly without any previous preparation of the ground, or without any participation by the employees in its development, often encounters obstacles.

"There is always danger that a Works Council initiated by the employer may be regarded with suspicion. It has been found that such suspicion may be overcome to a great





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degree by giving to the employees as large a share as practicable in the development of the project. The best results generally have been obtained where representatives of the employees have been called into consultation by the management in the formulation of the plan, or where the employees have been permitted at least to vote upon the question of its introduction.

"The spirit in which the employer proposes a Works Council has much to do with the manner in which it is received. Where it is set up by the employer condescendingly, as a sort of gratuity, it is likely not to meet with a favorable reception by the workers. On the other hand, where the Works Council is put before the workers as an arrangement designed for the mutual benefit of employer and employees, it is more likely to meet with favor.

"The importance of a thorough knowledge of the form functions and nature of the Works Council on the part o both the plant executives and the employees before it is set in operation has been demonstrated. Since the Works Council is a more or less complicated piece of machinery, it requires considerable explanation if it is to be fully understood and utilized. Moreover, the adoption of such a plan generally requires a modification of ideas and practices that have long prevailed in the establishment. It calls for a considerable readjustment in attitude, especially on the part of the foremen and other minor plant executives.

"The preliminary education and readjustment is sometimes accomplished by means of conferences and meetings with foremen and with employees, at which the features of the plan are explained and discussed. It may be facilitated also by the presentation of the plan itself in simple language and in attractive form.

Epitome of the Foregoing

"In evaluating the experience assembled in this report, certain conditions must be taken into account. The first of these is the comparatively brief period during which Works Councils have been in operation.

"Experience with Works Councils must further be judged in the light of their origin and of the unusual industrial conditions which prevailed during the war period, when most of them were created.

"Other collateral influences surrounding their formation should also be considered. Some of the plans were entered upon hastily without a proper understanding of their significance. Others were instituted in a manner which at the very outset prejudiced their chance of success. Still others were organized with a careless disregard of details. Again, the formation of some of the Councils was accompanied by a simultaneous change in management, the adoption of a bonus system, or some other radical change in operating conditions which may in large measure be responsible for their seeming success or failure.

"In view of the conflict of experience, it is as yet too early to measure definitely the permanent value of the Works Councils movement. Approximately three-fourths of the employers having Works Councils from whom an expression of opinion was secured declared themselves in favor of this form of industrial organization or that their experience had been favorable. Although further experience may lead to a revision of judgment in some cases, the results thus far obtained with Works Councils indicate that they are worthy of unprejudiced consideration on the part of American industry."

New Steel Manager

J. D. Jones Succeeds Late David Kyle at Algoma Steel Corporation's Plant

Mr. J. D. Jones has been appointed general manager of the Algoma Steel Corporation in succession to the late Captain David Kyle. Mr. Jones has been, since last September, general superintendent of the works. He was on the staff of the Algoma Steel Corporation from 1912-1916, but left in the latter year to take the position of chief engineer of the Gary plant of the United States Steel Corporation, returning to the Soo last fall.

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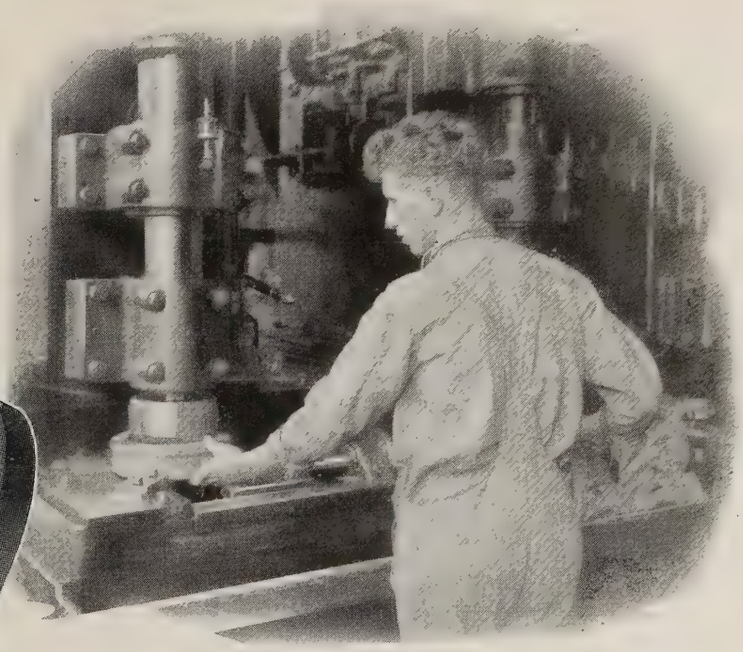
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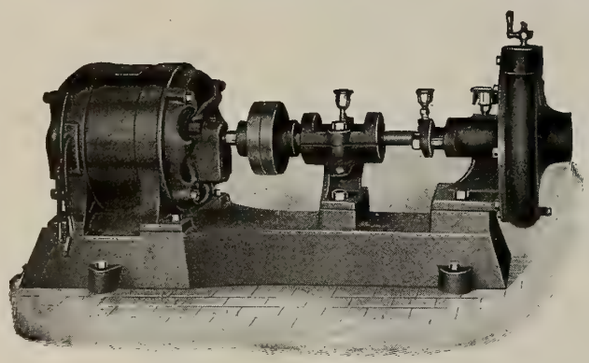
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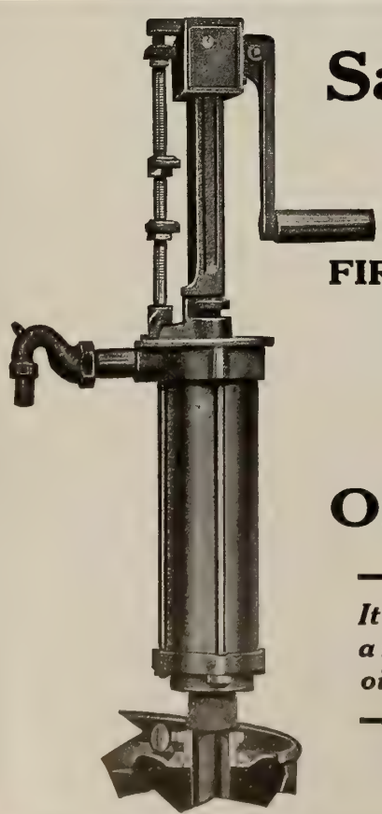
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Blue-Sky Law—Is It Desirable Legislation?

(*Continued from page 74*).

legislation of this character is more effective against the legitimate dealer than it is against the crook; and, second, that every attempt to assist legitimate business by striking out restrictions, tends to make the law more ineffective against the crook; and conversely, that every added restriction against the crook, applies with double and treble force against the legitimate dealer."

That is the finding of this Commission which has disapproved entirely of the introduction of Blue-Sky Law in the State of New York.

Likes the British System

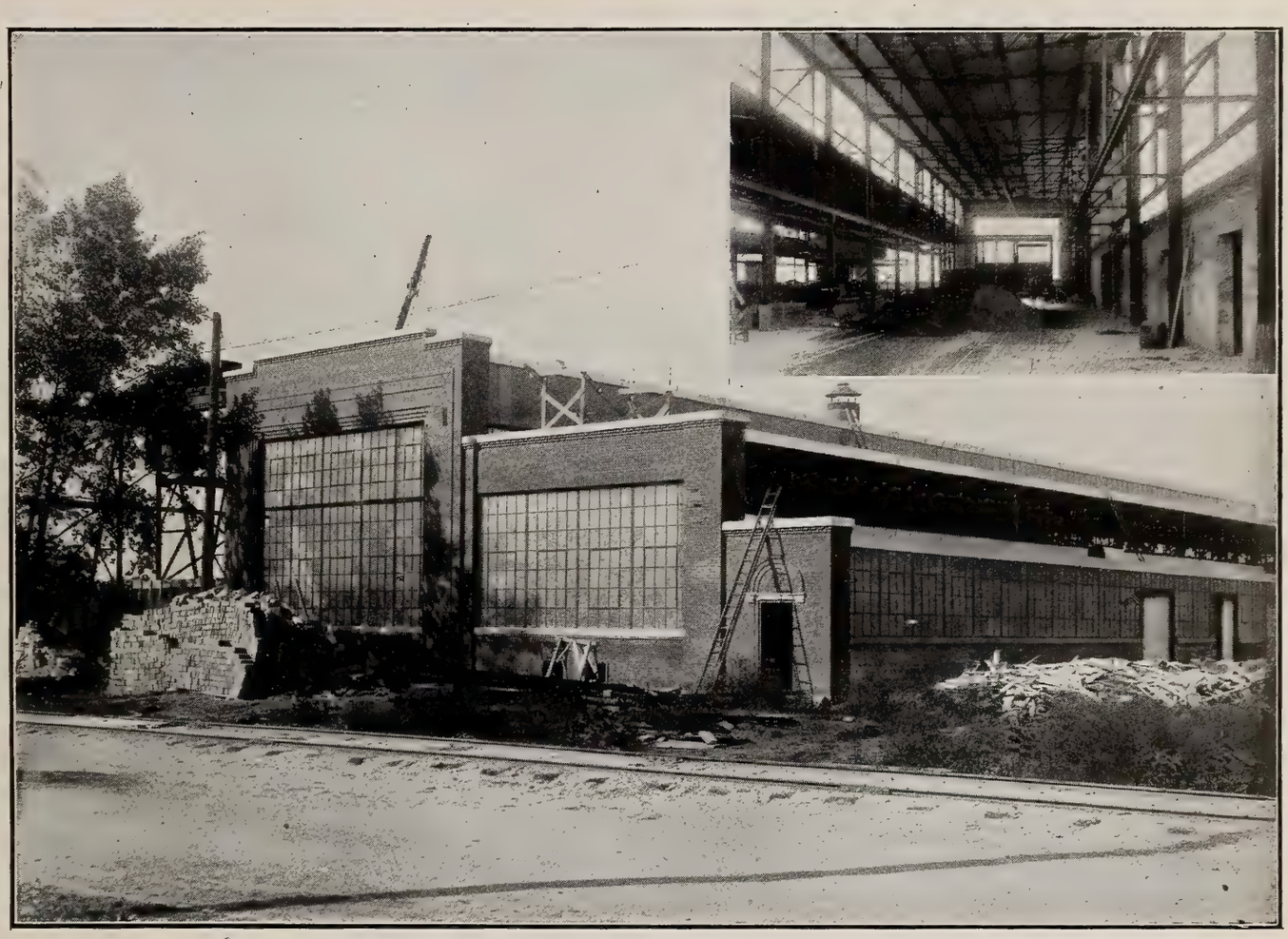
I have referred to the British system, and it is one which I should like to refer to a little more fully. It was first adopted in England in 1900 as I stated, after an investigation which was carried on over a number of years. You remember Ernest Terraholley and Whittaker Wright and several other British Blue Sky merchants had a very effective campaign in the early nineties and a Commission was appointed by the British Government to investigate the matter. That Commission was appointed I think in 1895. They proposed legislation on the subject which was investigated by a Parliamentary Committee and subsequently by a Committee of the House of Lords and it was not enacted until the year 1900.

Now there is one quotation from their report which I think is quite pertinent to this subject: "Your Committee may observe that they have dismissed from their consideration every suggestion for a public enquiry by the registrar or other official authority, into the soundness, good faith, and prospects of the undertaking at this or any other stage of a company's formation. To make any such investigation into the position of every new company complete or effectual would demand a very numerous staff of trained officers, and lead to great delay and expense, while an incomplete or perfunctory investigation would be worse than none. It would be an attempt to throw what ought to be the responsibility of the individual on the shoulders of the State, and would give a fictitious and unreal sense of "security to the investor and might also lead to grave abuses."

Go to England for Precedent

Now I would suggest that we should go to England where financial operations are carried on to a greater extent, where they have perhaps the same difficulties to encounter as we have here in Ontario, rather than to one of the Western States for our precedent.

I want to refer a little more particularly to this investigation which has been conducted in the State of New York. They considered three propositions. First of all dealing with each case of fraud as it appeared by means of an investigation board which would be authorized and kept in existence for that purpose. That was approved of as a matter of fact by this Commission. As a matter of fact these fraudulent vendors of securities usually go to the poor servant girl or to some one who cannot protect himself against the fraud. He has not either the time or money or opportunity to prosecute, as prosecution should take place for frauds of this nature, and it is suggested and approved of that there should be officials who would investigate and carry to prosecution and conviction every case of fraud of that kind that could be discovered.



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They also considered the Blue-Sky Law situation in Kansas, not only for the investigation of securities, but also the licensing of vendors, and they disapproved of all forms of Blue-Sky Legislation. There was a minority report however and it disapproves of the Blue-Sky Law, but it approved of the British method, that is the method which was adopted in the legislation of the year 1900. Now, that legislation is nothing more than the prospectus clauses which you have in the Ontario Companies Act which was introduced in 1907, and in the Dominion Act in 1917, and which is in fact the legislation of nearly all the provinces of the Dominion.

Report on British System

In the report upon that question their opinions of these clauses are worthy of consideration: "The British Companies Act has been a law in England for many years. It has worked satisfactorily and is generally commended by the British public. London has been the financial centre of the world for many years. The amount of flotations and the volume of securities offered to the public in London is far greater than the amount issued in New York, and we may conservatively conclude that a law which has worked well in England will work equally well here. The underlying principle of that Act is publicity. The promoters and vendors of securities are required to give the public full information and are made responsible for the truthfulness of such information in both the civil and criminal courts.

The majority report even against the British method, but apparently the minority have their convictions upon the subject when they approve of the British legislation.

Now there is one phase of the Kansas legislation which may be worthy of consideration. I know I spent some time out in Kansas City and Topeka and I was astonished to find that business men, bankers and everyone I ran across, lawyers too, considered that it was an effective law and that it was working out well. Now, it bothered me a great deal after seeing what they had done in the Banking Commissioner's Office to see how the public could come to such a conclusion.

Kansas Law Widely Advertised

The Kansas Blue-Sky Law was advertised perhaps more than any legislation that ever took place. For months and for years, for at least a couple of years after it was advertised nearly every paper you would pick up and every magazine you would turn to had some commendation of the Blue-Sky Law which was in fact intended to and was already clarifying the whole business community, doing away with frauds of all kinds. That was so widely spread throughout the United States that no doubt a great many swindlers and crooks left Kansas alone. That might be one reason why the people of Kansas came to that conclusion; they were not bothered by these Blue-Sky merchants, and therefore they came to the conclusion that it was because of the law that had been passed that conditions improved.

Now that may be, but I came to the conclusion that the real effective clause of the bill was one which requires all vendors of securities to be licensed; that a man before selling stocks of any concern or company should obtain a license from some official. That may or may not be a good thing, but we have a precedent for it here in Ontario. I remember years ago there were very serious frauds committed by selling United States Insurance here in Ontario. A lot of policies were written where there were no companies. There were frauds of all kinds and the correction of that was that everyone who sold insurance of a company outside of Canada was required to be licensed. I think that I am correct in making

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that statement, and since then we have had no frauds of that kind. It absolutely cured the situation.

It might be that a great deal of good would be accomplished by such a provision here in Ontario so that a bond broker or anyone who is selling shares would require a license from a department of the Government, he would require to give a certificate of character, and if he was afterwards found to be selling securities which he knew to be fraudulent, a cancellation of his certificate would put him out of business entirely. That would undoubtedly prevent that business of selling fictitious securities. It might not accomplish, as no law will accomplish, everything that you would like to have it, but it might go a long way towards curing the difficulties which are undoubtedly at present in this country.

Values on Share Certificates

There is another method which has been introduced, not for that particular purpose, but which has perhaps the same result. It is the issue of share certificates without nominal or par value. Undoubtedly there is a great inducement for a person when he is offered a share and it has on the face of it a dollar, to be able to buy that for ten cents; he thinks he is getting ninety cents for nothing. As a matter of fact no share certificate upon which any dollar mark is placed is a true statement. It would be a miracle to find a company whose shares were worth $100 each. They might be worth $300 or they might be worth ten cents, but to have them actually worth $100 each would be a very strange condition of affairs. As a matter of fact the dollar mark on a share certificate is a misrepresentation. You can take a case where every cent of the subscribers' money goes into a company that is floated or promoted, and the minute the money is put in bricks and mortar and machinery there is a depreciation in value and the $100 is not worth $100. So that it is a mistake to have the dollar mark on a share certificate. This particularly applies to oil companies and to mining companies where the shares are sold under discount. If these shares were without the dollar mark, that is to say each share represented a proportional part of the capital of the assets of the company, there would be no likelihood of such misrepresentation. A man then would not be buying a dollar, he would be buying a 1/100,000 part of the assets of the mining or other company. That would be but for some fraudulent representation there made. As a matter of fact this kind of security has been quoted on the New York Exchange since about 1912; it was first introduced in New York State in that year, and it spread practically throughout the United States. It is the favorite form of security. As a matter of fact it has been introduced in the Province of New Brunswick and it was introduced in the Dominion Companies Act by the amendment of 1917. It is very popular at present with promoters of companies. Whether it is serving their own purpose or serving the purpose for which it was originally intended, that is, to prevent stock watering, I don't know, but at any rate it is a very favorable kind of security at the present time.

Mr. Mulvey also dealt briefly with the vexed question of Dominion and Provincial incorporation, and suggested that the difficulty might possibly be solved were the Dominion to pay over to the provinces interested the fees which were obtained by the incorporation of companies having head offices in those provinces.

In a general discussion which followed, Messrs. E. G. Long and Alfred Bicknell, well-known Toronto lawyers, participated, while a vote of thanks was tendered to Mr. Mulvey by Messrs. S. R. Parsons and W. H. Shapley.

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Strike of Union Moulders

Has Now been Running Since Last May—Point of Contention has been Hours of Labor—Moulders Insist on 44-hour Week, Instead of 48 hours as Specified by Peace Treaty

A STATEMENT has been issued by the Canadian Founders' Association dealing with the strike of union moulders in Toronto and Hamilton. As the situation is one of general interest to manufacturers, this statment is herewith published in full:

"It is perhaps not generally realized that the union moulders of Toronto and Hamilton who went on strike with the other metal trades on the 1st of May, 1919, are still carrying on, or trying to carry on, their strike. The leaders of the Moulders' Union refused to allow their men to return to work on the 1st of August on the conditions offered by the employers, which were accepted by all the other trades. The point of contention was 'hours of labor'; they would not work 48 hours per week, according to the terms of the Peace Treaty, but insisted on 44 hours, though they were offered more money per week than their original demand called for.

No Concessions to Offer

"It is very difficult to understand why the moulders of these two cities should take unto themselves so much responsibility in the struggle for shorter hours, in view of the discussions at Industrial Conferences during the year, and especially the International Labor Conference at Washington, which went on record for a 48-hour week, whether worked in six full days or 5½ days. The need of greater production, the holding down of costs, and the fact that many employers of moulders also employ other trades who are working 48 hours, seems to have made absolutely no impression on these men. One leader of the Moulders' Union, who called upon an employer to try and get the strike settled on his terms, was asked, 'And what have you to give on your side, since the employers have made so many concessions?' His reply was, 'We have absolutely nothing to offer by way of concession.'

No Really Great Benefit

"If it could be shown that there was some really great and immediate benefit to moulders in the attainment of 44 instead of 48 hours per week, an unprejudiced observer might find some cause to admire men who could suffer so much loss, inconvenience and prestige, in order to gain their end; but, when one tries to get at the bottom of this strike, it is hard to see how four hours a week less work, under all the circumstances, can bring even a measure of real compensation. Moulders are not an unhealthy class of workers, and these very men worked 10 hours a day not so very long ago. Many moulders in Canada and the United States still work 10 hours a day, and the great majority work more than 48 hours per week. Surely it cannot be a health interest that sticks in the minds of these men. If it is, surely some of them have been inconsistent, because several shops in Toronto, which were unable to withstand the strike and gave in to the Union, immediately started in to work overtime, and the returned moulders and coremakers seemed to find it quite acceptable. Moreover, many striking moulders left and went to work in shops in outside places, where hours were 50, 54, and even 60 per week, and the pay much less than they were offered here. And

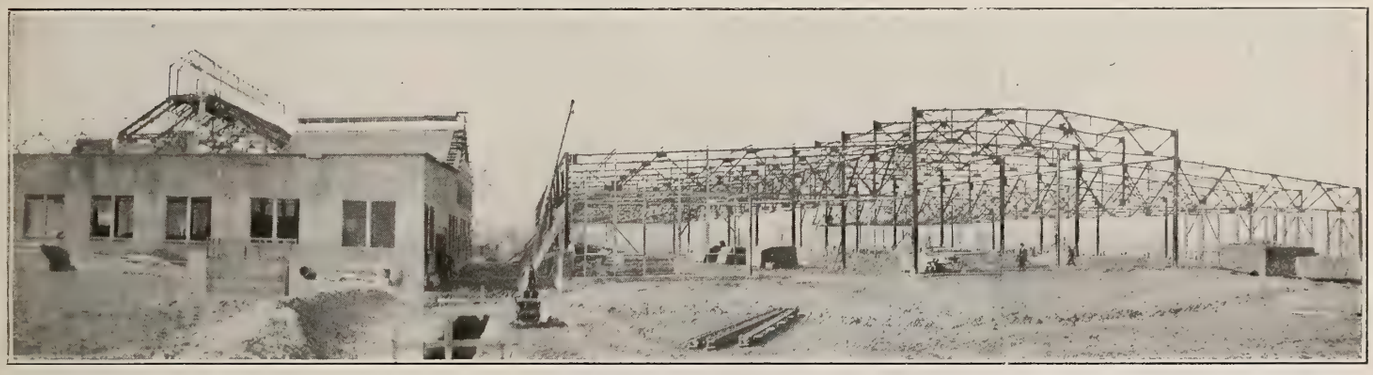
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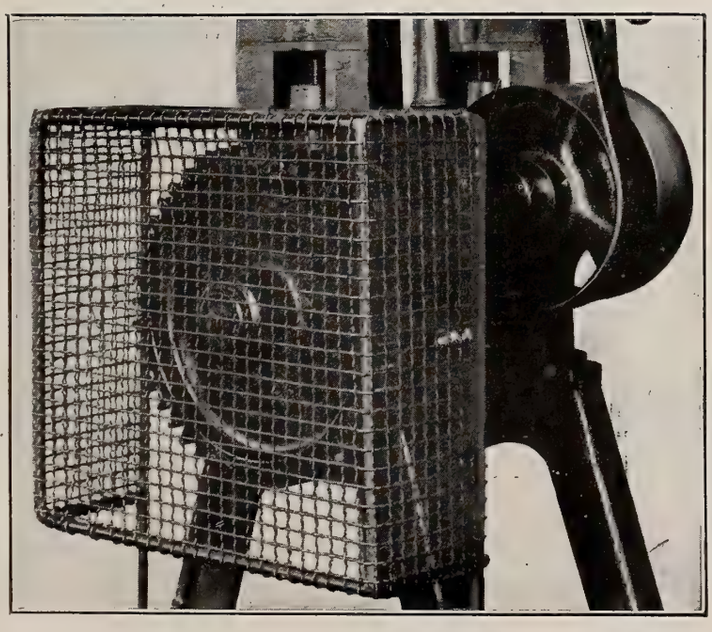
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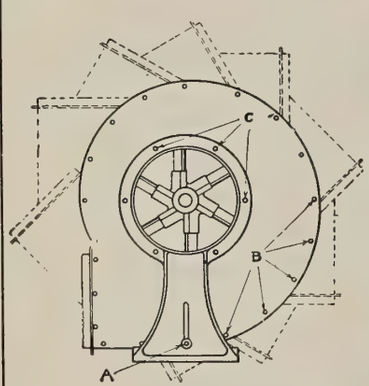
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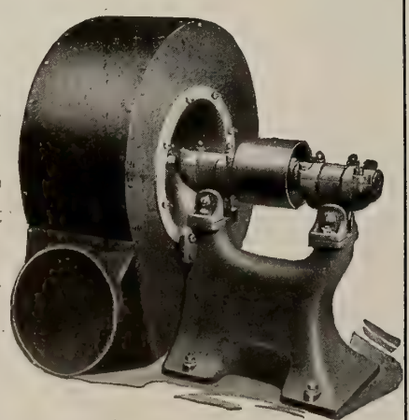
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men who came in from outside places, because conditions were better than where they came from, were put on strike pay to keep them from working. It is true that this strike has caused great loss to employers, because business in large measure went elsewhere for many months, and some plants will not get their regular business back again for a long time, even if the strike comes to an end. It is also true that the moulders have brought great loss upon themselves; they have injured their own trade beyond recovery in years. They have also injured all other metal trades which were dependent on castings for their raw material. A great deal of unemployment has been directly due to lack of castings to go on with, and men in these trades were forced to go elsewhere to obtain work. Surely these men overestimated the benefits of a 44-hour week when they place against them all these losses that the strike involved. It would look as though they were badly advised, and employers have felt that many of their old men would gladly have returned to work, except that it was difficult until permitted by headquarters.

Forcing the Issue to Conclusion

"One can understand how general headquarters might have an especial object in forcing an issue in a particular city in a case of this kind, and, assuming that to be so in this case, it would seem as though its members in these two cities were really being sacrificed to accomplish that object. Even then it is hard to find a sufficient compensation for the injury to the trade generally and to the local union in particular. Practically all the foundries in both Hamilton and Toronto are now running with non-union and ex-union men, and employers not only of moulders, but of all metal trades, have found, from their experiences in conferences and otherwise, definite lines of difference with the ideas of union leaders. This strike, because of its unreasonableness, has made it much more difficult for the unions of these two cities and the employers to find any common ground on which to work. The open shop is more definitely established as a principle than it has been before. The principle of greater production for the common good must stand, and the principle of compensation according to merit and accomplishment must stand, because they are in the best interest of all the people. Employers must be fair; they must treat their men so that they gain their confidence and co-operation. Unions would have nothing to fear, and much to gain, by standing up to all the responsibility that may come to them; they, too, must be fair if they are ever to obtain the recognition they so much desire. Fairness and integrity are hard to beat, and one might readily predict that that side to a controversy which sticks to fair methods, no matter what the other side may do, is bound to win in the end."

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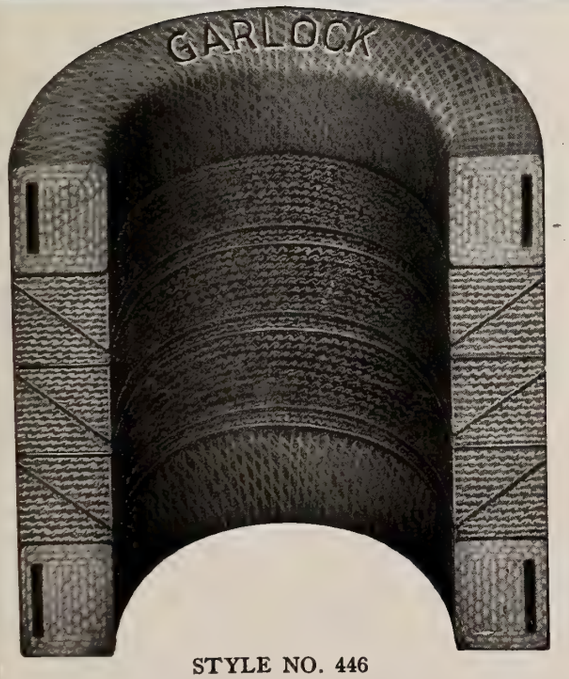
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Pulp and Paper Industry

Annual Meeting of Association, held in Montreal, when Valuable Reports were Presented by the Various Sections—Progress of the Industry Subject of Favorable Comment

THE seventh annual meeting of the Canadian Pulp & Paper Association was held in Montreal on January 30, when interesting reports were presented by the various sections into which the Association is divided.

In his presidential address, J. A. Bothwell, Brompton Pulp & Paper Co., gave a careful review of the year's work. It had been, he said, one of the most critical years in the history of the industry. Price regulation still continued, and that in spite of the fact that the industry was contributing



George Chahoon, Jr.
President, Laurentide Co., Limited
Elected President 1920-21, Canadian Pulp and Paper Association

upwards of $333,000 a day for every working day in the year to Canada's foreign trade, and helping to that extent to overcome the adverse trade balance with the United States.

"We are to-day permitted to do business abroad only on the condition that we submit to restrictions upon our right to do business at home. It is not surprising that some manufacturers regard the situation as intolerable, and have undertaken, in a perfectly legal way, to challenge the Government's position in respect to it. We now have the assurance of the Government that paper control will be terminated in June next and, while we are looking forward with confidence to the fulfilment of that assurance, we do not for a moment concede the justice or the right of the Government's treatment of our industry during the past three years."

In the book and writing section, success was achieved in preventing the reopening of the investigation into the price of book paper, this being shown to be totally unneces-





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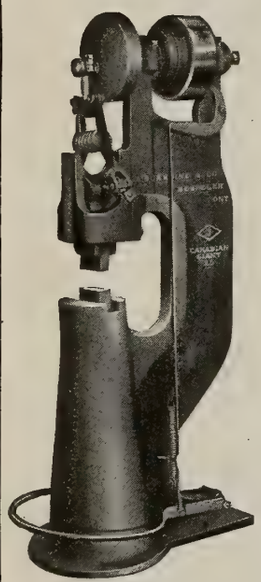
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sary. Good work was done by means of an advertising campaign, advocating the exclusive use of made-in-Canada paper in Canada.

Mr. Bothwell also referred to the visit to England of Mr. A. L. Dawe, the secretary, with a view to promoting interest in Canadian pulp and paper products among British importers; the adoption of an Association trade mark; the engagement of a traffic expert; the removal of the Association office to larger and more convenient premises.

The report of the Newsprint Section was presented by its chairman, Geo. M. McKee, Donnacona Paper Co.; the Chemical Pulp Section, by Angus McLean, Bathurst Lumber Co.; the Mechanical Pulp Section, by D. A. Clarke, Gulf Pulp & Paper Co.; the Book and Writing Section, by S. J. B. Rolland, Rolland Paper Co.; the Board Section, by J. F. Taylor; the Technical Section, by J. Stadler, Belgo-Canadian Pulp & Paper Co.; the Woodlands Section, by Robert P. Kernan, and the Coated Paper Section, by George W. Pauline, Ritchie & Ramsay, Limited.

George Chahoon, Jr., Laurentide Co., was elected president; Howard Wilson, J. C. Wilson & Co., vice-president, and A. L. Dawe, secretary-treasurer.

At the annual banquet, held at the Ritz-Carlton in the evening, the principal speakers were Sir Lomer Gouin, Geo. H. Montgomery, K.C., and Henry A. Wise, New York, representing the pulp and paper industry in the United States.

Plate Mill Opened

Celebration takes place when first plates are rolled by new Sydney Industry

Scores of invited guests, including Government and city officials, attended the ceremonies at the opening of the new ship plate mill of the Dominion Steel Corporation at Sydney on February 19. The sounding of a whistle was the signal for the beginning of the demonstration. Sharp at 2 p.m., Alex. Johnston, Deputy Minister of Marine, turned the switch that set the machinery in motion, and the first ship plate to be made in Canada was produced. Within an hour and a half sixteen plates had been cut and fashioned, and regular operations had begun.

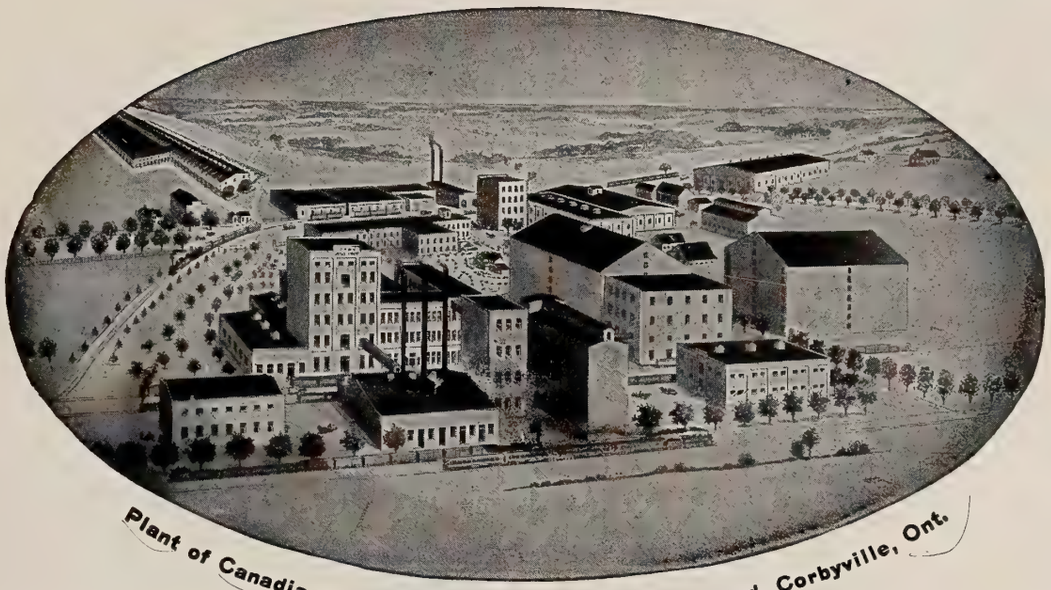
To the press, Mr. Johnston said, "The new mill started off without a hitch, and the first plates rolled are of an excellent quality, measuring up to the highest requirements of Lloyds. In fact, they are ready to go on the market right away. The 19th of February, 1920, marks a day that will be historic not only in the life of the Dominion Steel Co., but also in the shipbuilding industry of Canada and the world."

New Guelph Industry

Moncrief Furnace & Mfg. Co., Limited, Is Subsidiary of Henry-Miller Foundry Co., Cleveland

The Moncrief Furnace & Mfg. Co., Limited, who are an offshoot of the Henry-Miller Foundry Co., manufacturers of heating appliances, Cleveland, Ohio, are locating in Guelph. They have acquired the former Sherer-Gillett factory and seven acres of land. At present they are occupying the existing plant and will start operations early in the spring. It is their intention to put up another building the same size as the present one, and a little later in the summer will build a new foundry. They are now employing about ten men, who are engaged in installing machinery, and they expect in a short time to employ one hundred men. They will manufacture a full line of Moncrief hot-air furnaces, both pipe and pipeless. Mr. W. J. Shibley, late of Batavia, N.Y., is manager and treasurer.

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With a capacity of 450,000 (proof) gallons per month, we are the largest producers of Alcohol in Canada.

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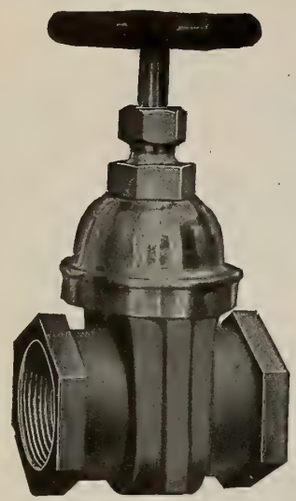
We make a special feature of contracting for the requirements of manufacturers for the year or season, thus providing not only a uniform cost but also a steady supply as needed.

Those who are using Duty Paid Alcohol in their manufacturing processes would do well to consult us with a view to using it "In Bond," thus avoiding the use of two-year-old Alcohol. Under the rules and regulations of the Department of Inland Revenue, newly made Alcohol may be used "In Bond." This Alcohol is much cheaper than two-year-old.

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Lumber Manufacturers

Annual Meeting of Organization, held this year in Quebec, with good Attendance—Several Noteworthy Resolutions are Passed on Various Matters of Interest to the Industry

WITH the largest attendance of members in its history, the Canadian Lumbermen's Association held a very successful convention in Quebec on February 4 and 5. The reports presented were of an encouraging nature. Membership had increased from 128 to 146, and finances were in a healthy state.

In his presidential address, W. Gerard Power, St. Pacome, Que., referred to the lessened production of lumber, which he attributed to a variety of causes. This shortage precluded any possibility of a drop in prices. He spoke favorably of consolidation in order to secure higher efficiency, and urged the removal of the excess profits tax as being a hindrance to progress. On the question of labor, Mr. Power took a strong stand in opposition to the Bolshevistic tendencies of the day. The exchange situation demanded action to prevent further depreciation in the value of the Canadian dollar.

The Executive Committee's report dealt with the work of the National Industrial Conference at Ottawa, and recommended that in the interests of Canadian labor and Canadian employers, effective steps should be taken to drive out the I.W.W. and O.B.U. organizations. It referred to the gathering of trade statistics, and urged members to see that requests for information were complied with. Reference was also made to methods of employment; to a court definition of the term f.o.b.; to exhibitions during the year; to policy *re* price quotations and to the desirability of abolishing the three-cent postal rate.

Business Profits Tax

Several resolutions were adopted. On the subject of the Business Profits Tax, it was resolved that:

"Whereas the Business Profits Tax of 1916 has expired by the effluxion of time, it is the judgment of the Canadian Lumbermen's Association, in convention assembled, that the tax be not re-enacted, as it has proved inequitable in principle and operation to individual initiative and enterprise; that this Association, however, approves of the continuance and extension of the income tax, in conformity to the necessities of the government to meet its incurred obligations arising out of the war; that this Association calls upon its Executive to appoint a strong committee to deal with the matter as its consideration shall arise in parliament and in council."

Preservation of the Forests

"This convention of the Canadian Lumbermen's Association, realizing as it does the great importance to Canada of the preservation and reproduction of the forest resources of Canada, hereby endorses the work of the Commission of Conservation in conducting a survey of the forest resources of the country, and the investigation of forest reproduction, and that the Dominion Government be urged to provide the necessary facilities for the early completion of these investigations."

Increasing Export Trade of Canada

"Having in view the great disparity between the imports and exports of this country, and the resulting effects upon the value of our currency in American exchange, be

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it resolved that the Canadian Lumbermen's Association desires to go on record as being strongly in favor of doing everything to increase the exports of all classes of materials, whether manufactured or the natural products of the forest, farm, mines or fisheries, and that a copy of this resolution be sent to the Dominion Government, and that the incoming Executive be requested to take such steps in the premises as may be necessary for the carrying out of the spirit of the resolution."

Providing Through Commodity Rates

"Whereas the situation frequently arises that sales of lumber are made for delivery from a given point on one line of railway to a destination on some other line, between which points the railway companies have no through commodity rates in effect, be it therefore resolved, that the Canadian Lumbermen's Association, in annual convention assembled, authorizes the incoming Committee on Transportation to take such steps as may be necessary to obtain the filing of tariffs by the railways providing through commodity rates between points on two or more railways, said rates to conform to rates for similar mileage between other points, which may be in effect already.'

Officers Elected

Mr. Dan. McLachlin (McLachlin Bros., Arnprior), was elected president; W. C. Laidlaw, Toronto, 1st vice-president, and Angus McLean, Bathurst, N.B., 2nd vice-president. A. E. Clark, Toronto, was elected chairman of the Transportation Committee; D. McLachlin, Arnprior, chairman of the Legislation Committee. The Executive Committee will be appointed by the President.

Directors for three years: James G. Cane, Toronto (re-elected); W. J. Bell, Sudbury, Ont. (re-elected); Duncan McLaren, Toronto (re-elected); Arthur H. Campbell, Montreal; Sir William Price, Quebec; Rufus E. Dickie, Stewiacke, N.S.; W. B. Snowball, Chatham, N.B. These were the seven directors elected at the convention in Quebec to serve for three years.

Those who are now on the Board to serve two years are: W. E. Bigwood, Toronto; Gordon C. Edwards, Ottawa; A. E. Clark, Toronto; Walter M. Ross, Ottawa; W. Gerard Power, St. Pacome, Que.; Alex. MacLaurin, Montreal; Angus McLean, Bathurst, N.B.

Those who will serve one year more are: E. R. Bremner, Ottawa; Dan McLachlin, Arnprior; W. C. Laidlaw, Toronto; George W. Grier, Montreal; D. Champoux, Restigouche, Que.; J. Fraser Gregory, St. John, N.B.; Sir D. C. Cameron, K.C.M.G., Vancouver.

To Operate This Month

Stratford Plant of Canadian Edison Appliance Co., Limited Will Be Ready Soon

It is anticipated that the plant at Stratford of the new Canadian Edison Appliance Co., Limited, will start operations during the latter part of the month. By the end of the year they expect to employ 250 hands, and hope by the following year to increase the number to 350. The concern is located in the building formerly occupied by the Mooney Biscuit Co. They will occupy at first the basement and first two floors of the factory, and expect by the latter part of 1921 to require the entire building.

The Hamilton Cotton Company, Limited, Hamilton, are adding a further story to one of the buildings of their plant, which will give 16,000 square feet of additional space, to be devoted to the installation of more webbing looms.

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Press Condemns Business Profits Tax

Continued from Page 64

commendation or a joint criticism. An income tax is an excellent thing from any point of view. A profits tax is a rotten thing from any point of view, except war necessity. President Wilson would probably realize the difference more if he had been a business man himself.

Every business or industry, to be progressive, or even safe, must make enough profit to not merely pay a fair annual dividend, but to provide for two things in addition—namely, first, a reserve against possible bad years; and, secondly, a fund for expansion—for new branches, or new equipment, or new machinery, or larger stock, or larger staff. Now, any tax upon profits tends to destroy this necessary business surplus, and so tends to injure and depress business and industry, to block progress and lessen employment.

Still, if there were no other way for the Government to get at some of the money made in business profits, a profits tax might be justifiable. But no need exists to get at such money in such a way. It can be got at in another way, a sensible way, a just way, and an easier way—namely, by income tax.

A profits tax is a tax on business surplus. An income tax is a tax on private wealth. But all business surplus must go to one of two things sooner or later—namely, either to private wealth or to business expansion. If it goes to business expansion, it should not be taxed; if it goes to private wealth, income tax can reach it.

Consider a moment. Let a business or industry show a large profit any year, or every year. What must become of that profit? Unless used in expanding the business, nothing can be done with it except divide it among the owners or shareholders. What else could you do with it? It can't go on accumulating unused. What good would it be to the proprietors in that case? Beyond what a business needs or uses, all business profit must sooner or later be divided up among the owners of the business. And whenever so divided, it becomes private income, and becomes subject to income tax.

All, therefore, that can be done by taxation to reach business profits can be done by income tax, and ought to be done by only income tax, because when you take the money away from a private individual by income tax you do not really hurt anybody or anything; whereas when you take the money away from the business of the country before it reaches any private individual, you are almost certain to be doing the whole community an injury. We have used the phrase, "you do not really hurt anybody or anything" by income tax, because the recognized principle of income taxation is to allow small incomes to be either exempt altogether from tax, or be very lightly taxed; and as to big incomes, they can stand a heavy rate of tax, without any hardship to the payers, except in their minds. In *The Journal's* estimation, taxation of large incomes can hardly be too great, and ought to be lavishly imposed by the public law, but taxation of business profits should not be tolerated in the slightest. This is an important question for Canada, because during the war a profits tax was imposed which has done harm to business and industry, and which should be stopped; while our Canadian income tax is not as heavy as it ought to be. The profits tax expires on December 31st, unless renewed by Parliament. It should not be renewed—neither in whole nor in part; but the income tax should be increased to make up any seeming loss.

A TAX ON SALES

(Toronto Mail & Empire, Feb. 10, 1920)

If the Business Profits Tax is dropped, it will not be because the revenue yielded by it is no longer needed, but because it is less defensible as a peace measure than as a war measure of finance. In war time we had to have the money, and it was right to turn to account temporary conditions that practically invited taxation. Large profits were

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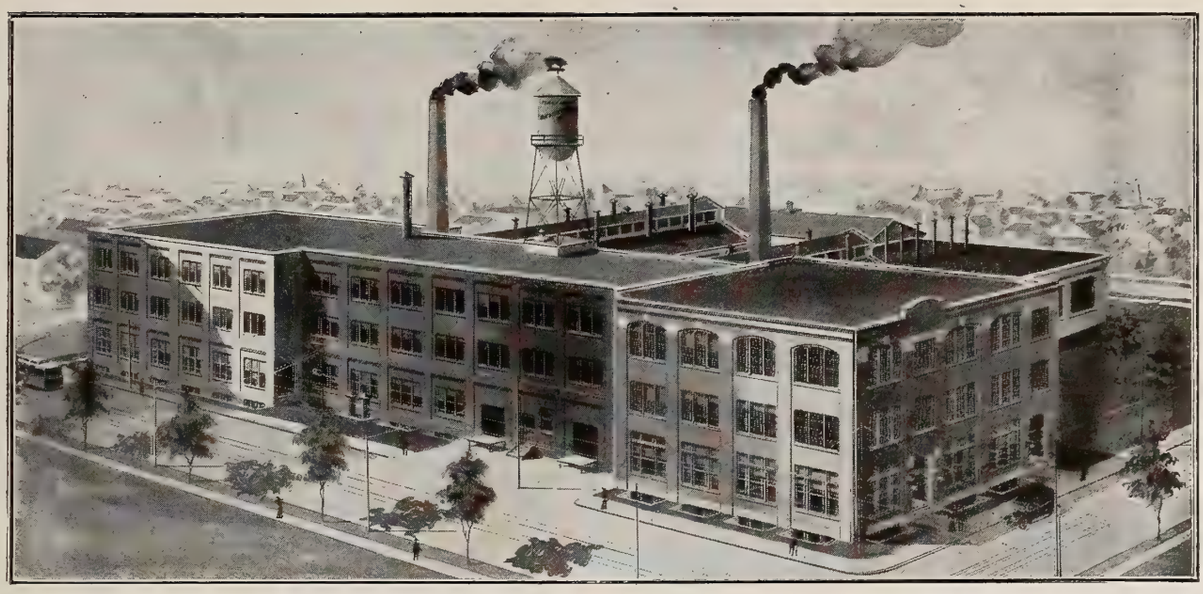
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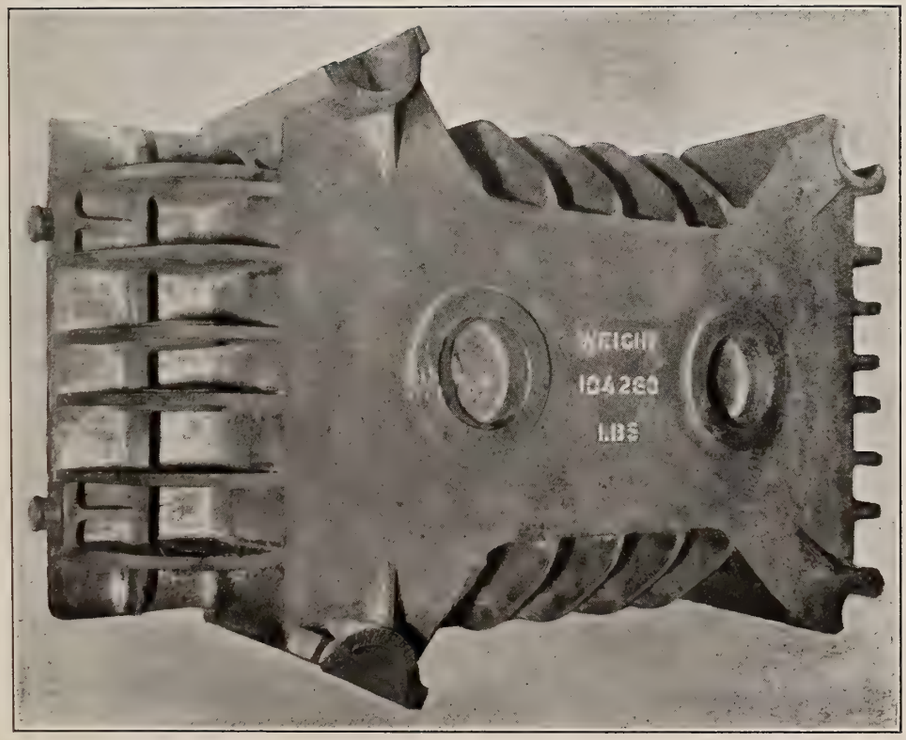
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being made in trades and industries to which the war brought vastly enlarged business. Persons and corporations engaged in those trades and industries were justly required to give the Government a share of their earnings above a margin covering charges on expense and renewal account, and a liberal rate of profit. As it was impossible to draw a line between businesses deriving benefit from the war and other businesses, the rule was adopted that all non-agricultural businesses, on a certain scale of operation, should share with the Government all that came under the definition of excess profits.

War time is past, and reconstruction time has come. Government orders will not figure in industrial and commercial business as they did in war days. Hence, the fairness of the requirement to divide profits, as such, with the Government will seem more questionable. Moreover, in a time of reconstruction, it will be an object of public policy to encourage enterprise of an industrial and commercial character to expand and increase production. By giving the conductors of trade and industry a chance to add to capital, the Government will promote enlargement of manufacturing capacity and trading operations; will in this way enable the body of returned men and of worthy immigrants to become absorbed in wage-earning employment; will conduce to the wealth of the country; to the lowering of the cost of living, and to the balancing of our trade with the United States. And, of course, the fountains of revenue from the other sources of ways and means devised by the Government will be made more flowing, and the solution of the national problem of making ends meet will be facilitated.

In reconstruction time the Excess Profits Tax might prove a hindrance to such development. Further, it might be a waning source of revenue. The Business Profits Tax was a good milch cow in war time, but might prove disappointing in peace time. Prices cannot keep up in the face of the omens to be read in the almost daily quotations of the international exchanges. There is certain to be a steady contraction of currencies towards the normal gold basis. Prices will come down and profits will be made to look less ample. The time for depending on the excess profits for satisfactory results to the national revenue and to the industry of the country is fast passing, if it is not already past.

But instead of less revenue, the Government has need of more revenue. Some mode of taxation must be devised to take the place of the Business Profits Tax, a mode that will give a still larger return, without handicapping commercial enterprise. A small tax on turnover would satisfy the conditions. A tax of one-half per cent. on the total value of the sales made in every business would yield a very much larger revenue than the $32,000,000 obtained from the Business Profits Tax in the last fiscal year, and would be practically unfelt. While business men could recoup themselves for this tax out of prices, it would not have a tendency to inflate prices by swelling profits. It is an objection to the Business Profits Tax that it is regarded by some people as a license to profiteering. At a time when most people will find it necessary to carry on business at moderate prices, a turnover tax would seem to be the ideal arrangement. Even a higher rate than we have suggested would not be burdensome to anybody, because of its wide final distribution over all the people, and it would not retard business at any stage or discourage expansion or new ventures. Not less than $50,000,000 might easily be raised from a small tax on sales, and even a larger amount might be obtained without being missed.

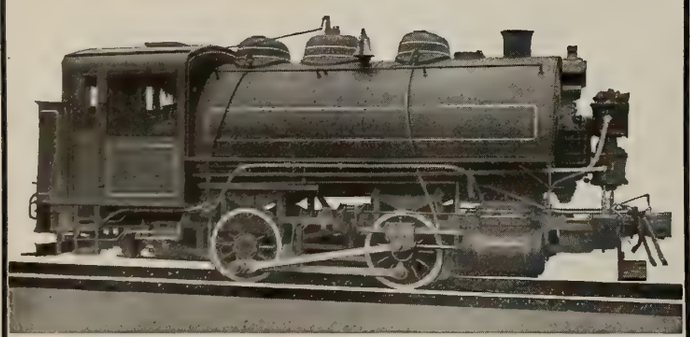
FOR AN EQUITABLE TAX

(Chicago Tribune, Jan. 27, 1920)

Excess profits taxes provide money quickly. But it is doubtful if the long continued policy of excess profits taxes is an economic advantage. It is one thing to take satisfaction out of an increased national bank account; quite another to batten that account at the expense of the healthy growth of industry when other means are accessible.

We are not so ingenious as to think that industry is to escape its obligations to the Government, but we are concerned about the proper methods of imposing those obligations. Industry—to employ a rough figure—is the cow that gives us our milk. Is it just to take the milk and also slice off choice porterhouses? And may we expect the animal to survive such exorbitant demands?

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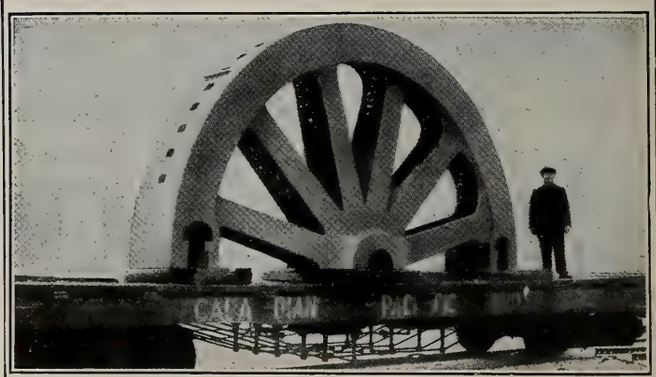


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If an industry earns a profit, no matter how large, that profit must soon or late find its way into the hands of the individual, provided there is no obstacle placed in its way, the excess profits tax being such an obstacle. The individual is entitled to a fair return on his investment, whether that investment be labor or capital, and a fair opportunity to enjoy the rewards of his zeal. But the Government, which protects and makes possible these rewards, may impose an obligation on him. Thus the income tax.

If the Excess Profits Tax is interposed as we have indicated, the profit neither reaches the individual nor has the slightest incentive for being. The excess tax is a burden upon industry at the very point where, for the enrichment of the national treasury, we ought least to burden it and most encourage it. Industry ought to be encouraged to make greater profits, so the Government may have a greater field for revenue. But the Government should not attach the profits as such, but levy on personal incomes as such. In this wise industry is not discouraged from growth and prosperity, revenue flows just the same and with equitable distribution; the stream is made to yield at its mouth instead of at its source.

It seems obvious that an industry taxed directly in its profits speedily will lack ambition to earn beyond a fixed point—the point at which taxation begins. This means lost revenue. For why should a business, governed, as all human activities are governed, by natural impulses, develop energy toward production in which there is no profit? Lacking the incentive to earn, business adjusts its pace to the restrictions, and taxes fall off.

But industry and the individual are animated by somewhat different emotions. An individual might be content to see his personal business slacken if there were no object in earning above a fixed point. Yet if there were no restrictions, no fixed Excess Profits Tax, he would eagerly push his business for the sake of his personal income, for the reason that even though his income tax might be severe, still the more income tax he pays the more he would get for himself. It is evident that any person would rather pay income tax on a million than a thousand.

These taxes, then, income and excess, are chiefly engrossing in consideration of the new revenue bill. Excess tax is likely to mean less excess profits. More excess profit means more income and more revenue. Our revenues ought to be steadily flowing, copious and equitably exacted, always with the view of sustaining in the healthiest and most prosperous condition the processes that provide them.

The income tax takes its toll from industry, through the individual, just as surely as from industry direct; but it encourages the industry to yield always more.

WAR TAXES

(Ottawa Le Droit, Feb. 17, 1920)

Undoubtedly money is needed, but it is crying abuse to maintain exceptional duties voted only for the duration of the war; it helps to keep up the high cost of living.

The same can be said for the war profits tax. Without doubt the excessive profits realized during the war should in part revert to the public treasury, but a single levy should be made on them, they should not be reached by means of a certain percentage deposited periodically, for profiteers will take this opportunity to raise prices, and make up their losses at the expense of the public.

POLITICS AND TAXATION

(Montreal Star, Feb. 14, 1920)

While the most active criticism of the tariff and the most urgent demand for taxation reform comes from the farmers' party, it is worth noting that during the four fiscal years, 1915-19, the agricultural half of the Canadian population paid 29 per cent. of the total increase in taxes and the non-agricultural population more than 71 per cent. The war taxation levied upon the agricultural population was $16 per capita, and upon the non-agricultural population $46 per capita. Direct war taxation during the four years produced $83,768,110. Of this amount the non-agricultural population paid $83,379,099, while the agricultural population paid $389,011, or less than one-half of one per cent. These figures are not quoted in order to discredit the farmers of Canada, nor to create any impresion that the industrial communities were badly treated, but simply to show how the burden



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of taxation is distributed and to establish the incontrovertible fact that no excessive burden has been imposed upon the agricultural population.

But it is almost impossible to impose direct taxes that will not become indirect in their incidence. The excess profits taxes have had consequences which no one foresaw. President Wilson has never been thought to have any unholy alliance with "the interests." Indeed, he has never been regarded with excessive favor by "American business." But he has said "there is a point at which in peace time high rates of income and profits taxes destroy energy, remove the incentive to new enterprises, encourage extravagant expenditures, and produce industrial stagnation, with consequent unemployment and other attendant evils." Mr. Glass, Secretary of the United States Treasury, declares that the excess profits tax, no higher in the United States than in Canada, "encourages wasteful expenditure, puts a premium on over-capitalization and a penalty on brains, energy and enterprise, discourages new ventures and confirms old ventures in their monopolies." He adds: "In many instances it acts as a consumption tax, is added to the cost of production upon which profits are figured in determining prices, and has been, and will so long as it is maintained upon the statute books, continue to be a material factor in the increased cost of living."

Mr. William B. Colver, of the United States Federal Trade Commission—which is denounced by President Nicholas Murray Butler, of Columbia University, for "unwarranted persecution of industrial enterprise"—has described the excess profits tax as "the corner-stone on which the structure of the high cost of living has been erected," because on everything sold "there are from one to fifty excess profits taxes." He continues "The excess profits tax is passed on and multiplied until about four or five dollars is taken out of your pocket, my pocket and the pocket of the man on the street for every dollar that finally gets to the public treasury. The tax is difficult and cumbersome to collect, and bears inequitably upon different concerns of the same size and profitableness. As a matter of fact, it is a bonus for inflated capitalization and a penalty on conservative capitalization. It should be repealed at the earliest possible moment, and its repeal, I am certain, will result in an almost immediate lowering of the whole unhealthy price structure, which is a burden alike upon every citizen, whether he be consumer, merchandiser, producer or taxpayer."

While consumption taxes are denounced in Canada there is an increasing general disposition in Europe to impose such taxes. In various countries of the Old World and in the United States a tax upon retail sales is advocated. Mr. Otto H. Kahn, a leading New York banker, advocates a tax of one per cent. on every single purchase above $2, which he estimates would produce in the United States from $2,000,000,000 to $4,000,000,000 annually. But the object of the moment is not to condemn excess profits taxes, nor to advocate specific changes in the Canadian system of taxation. It seems to be clear that we must have income taxes and corporation taxes, and that those best able to bear taxation must carry a heavy burden. It is, however, idle to suggest, even from the standpoint of revenue alone, that we can yet find substitutes for customs duties which must incidentally afford a considerable protection to Canadian industries. Indeed, if by some decree of Divine Providence, no man in Canada from this time could remember that we ever had a tariff controversy, we would proceed to solve with common consent more of the problems that perplex us and the differences which now divide East and West, and Industry and Agriculture, would not even be whispered at the council table around which the statesmen of the nation would deliberate upon the things vital to its security, stability and expansion.

Business is entitled to an immediate announcement as to whether the Business Profits Tax is to be renewed or not. There are enough uncertainties in the commercial and industrial world to be contended with at the present time without this unnecessary suspense. A few remarks from Sir Henry Drayton would be in order.

—Toronto, *Financial Post*, February 21st, 1920.

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CANADA'S INDUSTRIAL EXPANSION

Continued from Page 82

Company Reorganized

Canadian Flax Mills Limited now in hands of a New Set of Officers

Canadian Flax Mills, Limited, are now settled in their new office at 43 Victoria Street, Toronto. While officers of the company have been changed, operations are being carried on as in the past. The company are at present operating six mills, with a monthly capacity of approximately 125 tons of flax fibres and tows, and this production they hope soon to increase. J. M. MacKenzie is now president; John H. Campbell, vice-president and general manager, and F. C. Annesley, secretary-treasurer.

Plant Officially Opened

Factory of Champion Spark Plug Co. of Canada, Limited Has Started Operations

The official opening of the fine new plant of the Champion Spark Plug Company, of Canada, Limited, took place on February 16, Mayor Winter of Windsor officiating. The factory was thrown open for inspection by the public and all day throngs of people passed through. A luncheon for members of the staff and guests took place at the Essex Country Club, and at night the employees dined at the Detroit Athletic Club. The factory is a fine steel and cement structure. All parts of the spark plug, with the exception of the porcelain, are made in the plant, which is the first of its kind in Canada. The plant, when in full operation, will employ about 150 hands and will produce plugs at the rate of 40,000 a day.

Re-open Welland Plant

Canadian Steel Foundries Closing Contract Which Will Lead to Operation of Industry Again

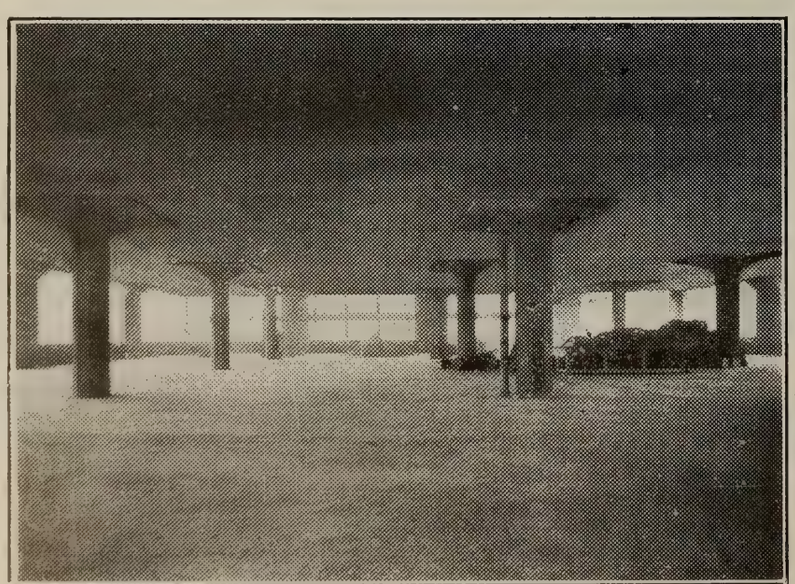
The Welland plant of Canadian Steel Foundries, Limited, which was closed down last summer, will probably be re-opened this spring, according to information received from a reliable source. The company, it is understood, are only waiting to settle the terms of a contract with the Belgian Government for the construction of cars, and the expectation is that this will be settled and executed within the next few weeks. Immediately thereafter the plant will resume operations with a full force.

Move to Owen Sound

Synthetic Rubber & Tire Co., of Canada, Limited, Remove Plant From Toronto

The large stone building in Owen Sound formerly occupied by the Owen Sound Wire Fence Company has recently been taken over by the Synthetic Rubber & Tire Company of Canada, Limited, of Toronto. They are confining their

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Interior of New Factory of Grahams Limited, Belleville, Ont.

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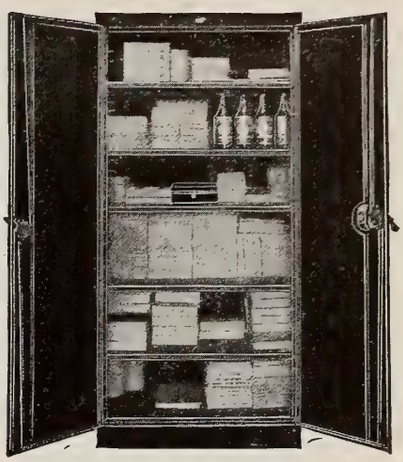
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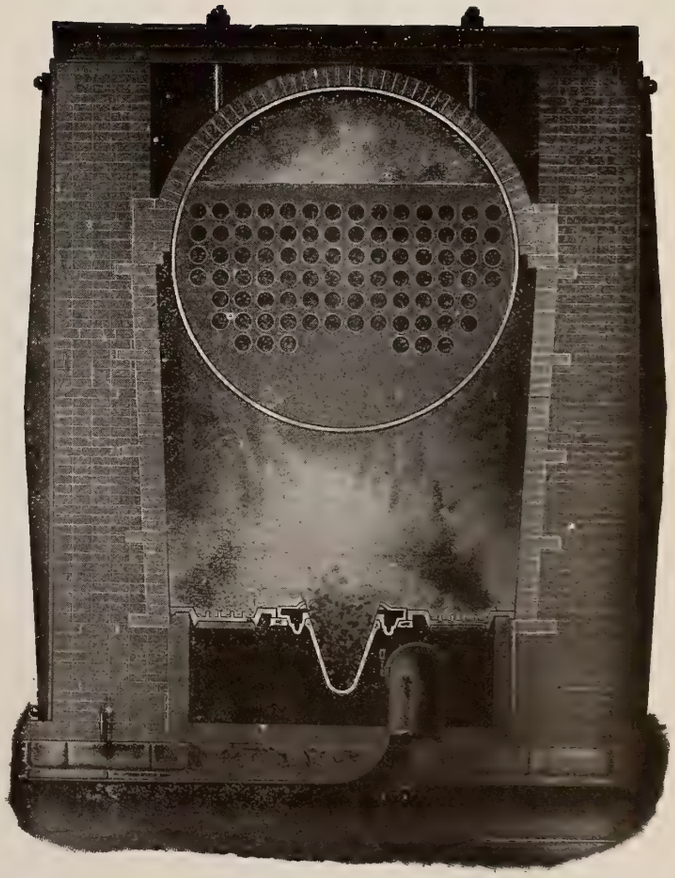
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operations to a synthetic rubber tire filler, for which they state that orders are in excess of their ability to supply. They believe that the plant is likely to grow into a very large one, but at present can form no estimate as to output or number of hands. Later on they may be able to consider the manufacture of other lines. Henry W. King, Toronto, is president of the company.

Book Large Orders

Canadian Locomotive Co., Limited, Kingston, to Build Thirty-Three Locomotives

The Canadian Locomotive Company, Limited, Kingston, have recently received orders for thirty-three locomotives. Of these, ten 12-wheel locomotives are for the Jamaica Government Railways, and of these three have been delivered; three Mikado locomotives for the Pacific Great Eastern Railway, and twenty switching locomotives for the Canadian National Railways. The company's present capacity is twelve engines per month, so that this will give about three months' work.

Make Three-Storey Addition

Harvey Knitting Co., Limited, Woodstock, Will Increase Output by 25 per cent.

Harvey Knitting Company, Limited, manufacturers of high-grade underwear, Woodstock, are erecting an extension, 66x63 feet, three storeys and basement, which they fully expect will enable them to increase their output by approximately 25 per cent. This is to look after Canadian trade only. The company state that their business has gradually increased on both fall and winter goods for the last five years and two years ago they eliminated their sweater department to allow more floor space for underwear. At present this floor space is fully occupied; hence their reason for building. The business on their books this year shows an increase of approximately 100 per cent. over last year.

Being Rebuilt

Core-Making Department of Taylor-Forbes Co., Limited, Guelph, Damaged by Fire

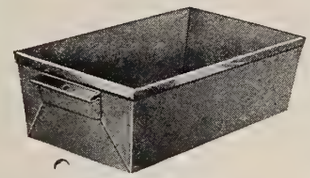
Fire which broke out about 6.30 o'clock on the morning of February 20 in the core room of the Taylor-Forbes Company, Limited, Guelph, did a good deal of damage to the plant. The company state that the fire was reported out at 10 a.m. At 11 o'clock contractors were on the ground looking over the mess, and at one o'clock structural material was delivered and they had men at work. Inside of ten days from the date of the fire the damage was repaired. Meantime the company did not close down and no one was out of work.

Take over Streetsville Plant

The Harris-Wood Products Co., Limited, Start Operations in Existing Building

The Harris Wood Products Company, Limited, manufacturers of Harris System sectional construction, have taken over a plant in the town of Streetsville. They are at present turning out sample houses for England and France and filling a few domestic orders. When these are completed, they intend closing down during the rest of the month of March to install new machinery and erect a new plant. The present floor space is over 4,000 square feet and this will probably

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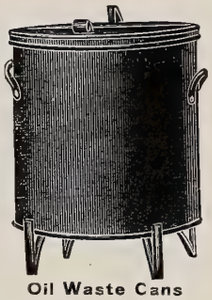


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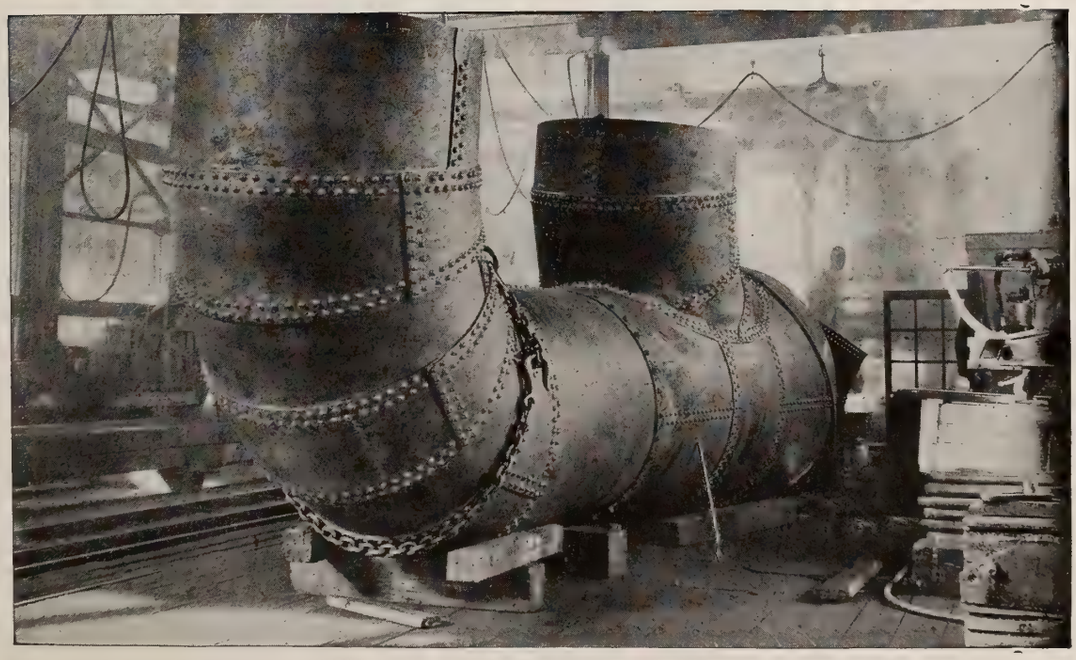
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LARGE STOCK OF STRUCTURAL MATERIAL AT ALL PLANTS



be doubled in the new factory. They have six acres of land, which will allow for expansion. They anticipate doing a large export trade.

Open Canadian Plant

Hall-Thompson Co., of Hartford, Start Manufacturing in New Factory in Montreal

In order to take care of their Canadian business, the Hall-Thompson Company, manufacturers of chemical automobile specialties, Hartford, Conn., have built a factory at 3150 Mance Sereet, Montreal, specially adapted for the work. The building is now completed and they are installing machinery in expectation of starting to operate early in March. Their line is known as the "Wonder Worker" and is confined entirely to automobile necessities, including polishes, dressings, cements, patches, paints, etc.

Double Their Capacity

William and J. G. Grey, Toronto, Erect Five Storey Building to Enlarge Plant

William & J. G. Grey, Toronto, manufacturers of milling machinery, etc., have added a new machinery and manufacturing department to their plant which will about double its capacity. The new building is 90x160 feet, five storeys high, and is equipped with travelling electric crane, freight elevators and all modern improvements. They are also installing in the building some machinery for handling heavy work, including a 96-inch boring mill, weight 65,000 pounds, and other equipment.

Will Remove Plant

Ontario Spring Bed and Mattress Co., London, Buy Property of London Foundry Co.

The Ontario Spring Bed and Mattress Co., manufacturers of beds, springs, mattresses, pillows, brooms, whisks, etc., who are at present located at 88-90 York Street, London, have purchased the property formerly occupied by the London Foundry Co., and are remodelling and refitting the same for their requirements. The new plant differs very little in size from their present plant, but they will have considerable space to take care of their needs for the future. They do not intend to move for two or three months yet.

Hoover Plant Inspected

Banquet Held in Hamilton to Mark Inauguration of Operations in the New Factory

On invitation of the management, the Mayor of Hamilton, members of the board of control, local members of Parliament, the Hydro Electric Commission, and a body of representative citizens, inspected the new plant of the Hoover Suction Sweeper Co. of Canada, Limited, Hamilton, on February 12. The entire process of manufacture was shown. In the evening a dinner was tendered to the visitors and dealers from all parts of the country at the Royal Connaught Hotel. Speeches of a most felicitous character were delivered by Hon. S. C. Mewburn, Hon. W. R. Rollo, Mayor Booker; George H Douglas, Chairman Ontario Division, C.M.A.; H. W. Hoover, general manager, and F. G. Hoover, associate general manager of the parent company in North Canton, Ohio.

With the exception of the motors, all parts of the sweeper are made in the Hamilton plant. At present the staff num-

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Famous Five Files keep their edge longest. They are made of highly specialized steel, accurately cut and thoroughly hardened.

Specify them when ordering. They are:

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bers about 100 and the output amounts to thirty sweepers a day. This will be increased to 200 daily in the present plant, with an ultimate output of 500 daily within two years, the additional 300 being for export. The output of the parent plant is 1.200 daily.

Plant Nearly Ready

Factory of Butterfly Hosiery Co., Limited Drummondville Soon to be Operating

The Butterfly Hosiery Co., Limited, a company incorporated under a Quebec charter, and in which some shareholders of the Chipman, Holton Knitting Co., Limited, Hamilton, are interested, have been erecting in Drummondville, Que., a new plant, the main building being about 150 x 50 feet, two stories, with separate dye house, boiler house, etc. The company will make fine gauge goods in cashmere, silk, etc. The factory is nearly completed, and it is expected that operations will commence within the next few weeks.

Hamilton's New Industries

Thirty-two New Plants Were Located in the City During the Past Year

Interesting information about the industrial growth of Hamilton during 1919 is contained in the annual report of C. W. Kirkpatrick, Commissioner of Industries and Publicity. From this report it is learned that during the year thirty-two new industries, representing a total capitalization of $15,670,000, and an employment, when in operation, of 4,700 hands, were located in the city. The value of the industrial building permits issued was $1,614,780, which does not include the Firestone Tire & Rubber Co., whose buildings are just outside the city limits.

"Quite as important as the number of new industries secured," states Mr. Kirkpatrick, "is the number of new lines of manufacture added to the city's already long list. These total upwards of fifty, chief among them being automobile tires and rubber goods, commercial felts, suction sweepers, hosiery needles, carbonated gases, varnishes, etc. The diversity of Hamilton's industries is one of the factors in its steady prosperity, being a safeguard against slumps and unemployment, as it is seldom that all classes of industries are slack at the same time.

"Another interesting feature of Hamilton's 1919 industrial growth was the securing of the city's first Canadian branch of an English manufacturing concern, the Porritts and Spencer Company, of Bury, England. Now that a start has been made, there are good reasons for hoping and believing that other British industries will follow. In fact, I expect in the near future to be able to announce the location here of another very important English concern.

"Eleven of the new industries secured last year are either Canadian branches of American companies or are controlled by American capital, while six others are industries that had located, or decided to locate, in other Canadian cities, but were afterwards induced to come to Hamilton, because of its superior manufacturing and distributing advantages. Notable among the latter is the Hoover Suction Sweeper Company, of North Canton, Ohio, which had an assembling plant at Windsor, but last spring decided to make Hamilton its Canadian and export headquarters, and has since erected and equipped a model manufacturing plant on Gage Avenue, which is a credit to the company and the city.

The list of new industries includes the following companies:

Firestone Tire & Rubber Co., Akron, Ohio; Porritts & Spencer Co., Bury, England; Zimmerman-Reliance Co., Toronto and Hamilton; Hoover Suction Sweeper Co., North Canton, Ohio; Carr Fastener Co., Cambridge, Mass.; Norton Co., Worcester, Mass.; Industrial Varnish Co., New York and Toronto; Beaver Truck Builders, Chicago, Ill.; Quaker City

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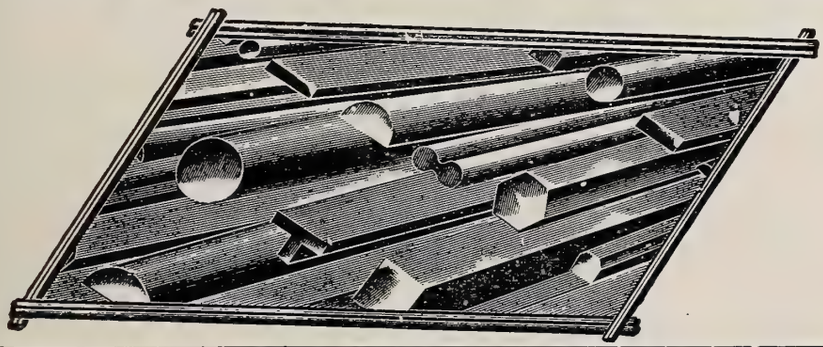
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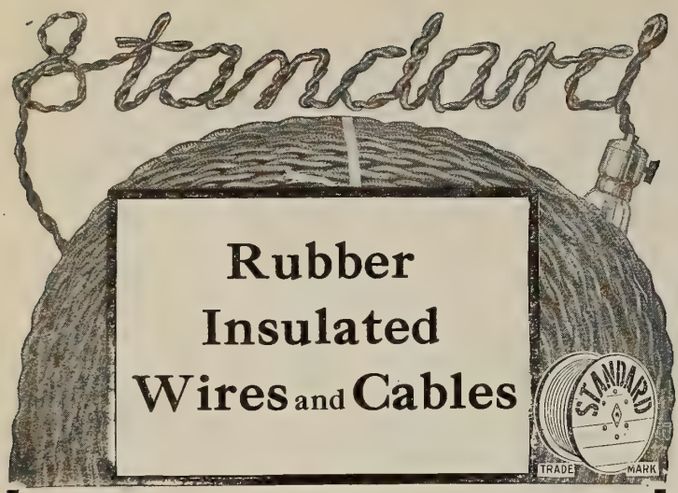
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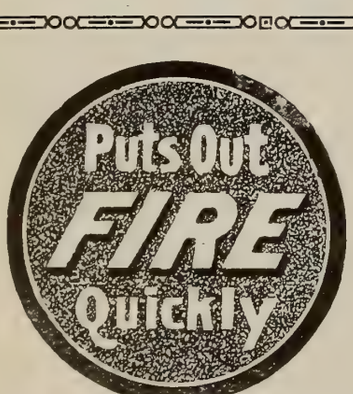
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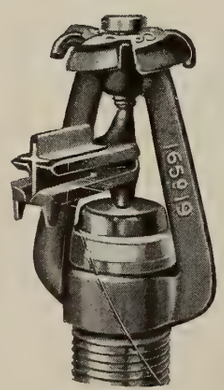
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Option at Toronto

[Semet-Solvay Co. Get Option on Twenty Acres for By-Product Coke Oven Plant]

The Semet-Solvay Co., Syracuse, N.Y., confirm the report that they have secured an option on twenty acres of land in the eastern industrial area of the Toronto Harbor Commission, with the intention of possibly utilizing it for the erection of a by-product coke oven plant. They are not prepared, however, to give any further information about their plans at the present time.

The Kelsey Wheel Co., Limited, manufacturers of auto wheels, hubs, rims and stampings, Windsor, are erecting a new building, 50 x 150 feet, to be used principally as a galvanizing and pickling plant.

Production of vegetable parchment paper was started by the Canadian Vegetable Parchment Co., St. Catharines, at their new plant, on February 12. Ground for the construction of the plant was broken in August last.

Firstbrook Bros., Limited, manufacturers of boxes and shooks, Toronto and Penetang, are at present erecting a small box shook plant at Thessalon, Ont., which will probably be in operation about May 1. At least fifty hands will be employed.

The Laidlaw Bale Tie Company, Limited, Hamilton, are erecting a building 210 x 40 feet, one story, saw-tooth construction, which will be used principally to relieve congestion in their present premises, though it may result in an increased output.

Tallman Brass & Metal, Limited, Hamilton, have purchased 14 acres of land on Burlington St. They have no intention of making any plant extension at present, but have secured the land so as to be prepared for enlargement whenever it becomes necessary.

The Tolton Manufacturing Co., manufacturers of "Quality Trousers," Guelph, Ont., are now a limited liability company. Mr. William Tolton, the president, states that no new capital has been taken in, nor is it the intention to extend the business other than through natural growth.

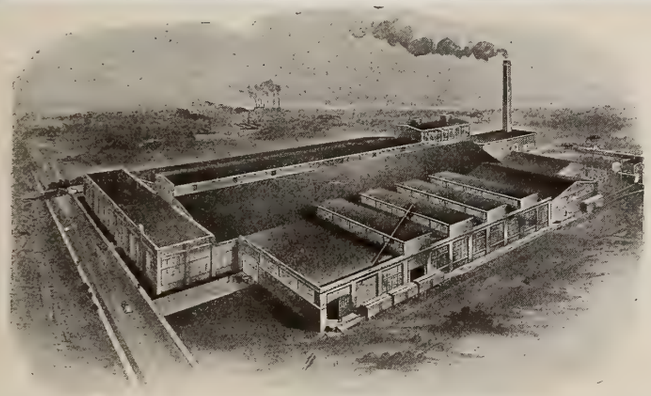
Merner Bros. are establishing a flax mill, with a capacity to work up from 300 to 400 acres of flax, in Clinton, Ont., and expect to have it ready for operation for the 1920 crop. J. J. Merner, of Merner Bros., is at present operating a mill of the same capacity in Seaforth, the style of the firm being Merner and Fell.

The Toronto Putty Co., specializing in the manufacture of all grades of putty, have started operations at 17 Jarvis Street, Toronto. The capacity of the plant is about a ton and a half a day, but plans are already being considered for enlargement of its capacity. The industry was started on January 1.



For Wire Rope of Durability
use
"DOMINION"

The Dominion Wire Rope Company, Limited
Toronto Montreal Winnipeg



SHAFTING

Cold Drawn, Cold Rolled
Turned and Polished Steel
FINISHED KEYS

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THE CANADIAN BRIDGE CO., Limited
WALKERVILLE, ONTARIO
Montreal Office: New Birks Building
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RAILWAY AND HIGHWAY BRIDGES
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ONTARIO REPRESENTATIVES FOR
CENTURY ELECTRIC MOTORS
We make Alternating and D. C. Motors and Generators and
REPAIR ALL KINDS OF ELECTRICAL MACHINERY

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Solicitors of Patents
Counsel, Solicitors and Experts in
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Agencies in the leading countries of the World.
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KENT BLDG., YONGE STREET, TORONTO

CANADIAN COLLAPSIBLE TUBE CO., Limited
MANUFACTURERS OF
"Premier" Pure Tin, Plain and Decorated Collapsible Tubes
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Steel Tanks
Troughing
Steel Chutes
Conveyors
Steel Pipes
Steel Stacks



Steel Plate Work

If it is a bit out of the usual, let us handle it.

We specialize in doing work that other shops don't care to tackle.

It lasts longer----if Waterous-built.

Waterous
BRANTFORD, ONTARIO, CANADA

Deaths Among Prominent Manufacturers

A Veteran Stationer

Death of Richard Brown Removes Grand Old Man of Stationery Manufacturing Industry

For sixty years the late Richard Brown, whose death occurred in Toronto on February 14, was head of the manufacturing stationery firm of Brown Bros., Limited. He was indeed the Grand Old Man of the industry and, until quite recently, even after he had passed his eightieth birthday, took an active, everyday interest in the business. Born in Newcastle, England, eighty-six years ago, he came to Toronto at the age of twelve, and was a resident of the city ever since. During his long career, he saw the business, which he helped to start, expand from a small beginning to its present large proportions, with *clientèle* extending from Atlantic to Pacific.

Was Prominent Canner

David Marshall, M.P., Was Long Associated with Canadian Canning Industry

The career of the late David Marshall, M.P. for East Elgin, whose death occurred quite suddenly at Vancouver on February 14, was an interesting one. Born at Eden Mills, near Guelph, in 1846, he was brought up on a farm. For some time he was employed at scaffolding work in the Petrolea oil fields, and then formed a partnership for the operation of a threshing outfit. He continued at this work for five years, when he established a shingle factory. Three years later he bought out a grocery business in Aylmer, which he conducted for ten years. He was one of the promoters and for twenty years manager of the Aylmer Canning Co., which was eventually merged in the Dominion Canners. Of the latter, Mr. Marshall was for three years general manager, and, at the time of his death, a director. He was also one of the promoters of the Aylmer Condensed Milk Co., being president until the business was purchased by Carnation Milk Products Co.

Interested in Many Industries

Late Edward L. Goold, of Brantford, was closely associated with city's industrial l'fe

On February 16 there passed away, at Brantford, Mr. Edward L. Goold, president of the Goold, Shapley & Muir Company. Mr. Goold was closely identified with the industrial life of the city. His father came to Brantofrd in the early forties, and as far back as 1850 the firm of Goold, Bennett & Company, iron and brass founders, was quite a flourishing concern. Mr. Goold, Jr., went as a young man to Chicago, where he was for a short while with Marshall Field & Company. It was not long, however, before he returned to Brantford. He first of all became senior partner of Goold & Agnew, stove and hardware merchants, and in 1881 joined the firm of J. O. Wisner, Son & Company, manufacturers of cultivators, harrows and other farm implements. After the absorption of this business by the Massey-Harris Company, Mr. Goold threw himself into the manufacture of bicycles, having with him as partners Messrs Shapley and Knowles. This industry reached large proportions, employing at one time 600 hands. Ultimately the

Penmans

Underwear, Hosiery and Sweaters
Laundry, Pulp and Papermakers' Felts, Blankets
Lumbermen's Socks, etc.

Factories at

PARIS, THOROLD, PORT DOVER, ALMONTE AND BRANTFORD, ONTARIO
ST. HYACINTHE AND COATICOOK, QUEBEC

Penmans LIMITED

PARIS : : : CANADA

Doon Twines
Limited

Kitchener - Canada

Manufacturers of
TWINES AND CORDAGE
CLOTHES LINES
PLOW LINES, etc.

We have a new line of Hemp Twine which we especially recommend for either light or heavy parcelling.

Our goods are made in Canada from the raw material. Assist the development of our country by buying Made-in-Canada goods.

MILLS AT DOON AND KITCHENER

The
MONTREAL COTTONS
LIMITED

MANUFACTURERS OF

WHITE VICTORIA LAWNS

WHITE NAINSOOKS

and

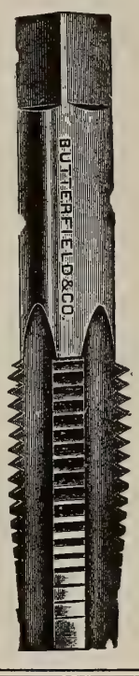
DYED COTTONS

OF EVERY DESCRIPTION

HOW MANY

Taps, Dies and Reamers do you buy in the course of a year? Whether it is a few dozen or hundreds of dozens, you'll save money by specifying

"Butterfield"



This name on the shank of any cutting tool signifies "quality."

It has carried the same significance now for so many years that the two words "Butterfield" and "quality" are inseparable companions. Ask your mill supply dealer for Butterfield Taps—he likes to sell them because he knows they will give you the greatest satisfaction for the money expended.

Butterfield & Co., Inc.
Rock Island, Que.



The Original and Only Genuine

¶BEWARE OF IMITATIONS SOLD ON THE MERITS OF—

Minard's Liniment

Office and Laboratory: Yarmouth, N.S.
Branch Factory: St. John's, Newfoundland

business was sold to the Canada Cycle & Motor Company. Further back than this, Mr. Goold had established Goold & Company for the manufacture of beekeepers' supplies and refrigerators. Messrs. W. H. Shapley, John Muir and E. Yeigh later joined with him, and the outcome was the firm of Goold, Shapley & Muir Company. Mr .Goold was also president and main promoter of the Brantford Oven & Rack Company; one of the leading spirits in the establishment of the Brantford Screw Company, now merged in the Steel Company of Canada; the president of the Beaver Oil & Gas Company, and interested in many other companies.

Was Expert Steel Maker

Late Captain David Kyle, M.C., Vice-President Algoma Steel Corporation, Held in High Esteem

In the death of Captain David Kyle, M.C., vice-president of the Algoma Steel Corporation, which occurred at the Sault on February 1, the company has lost a valuable official. The late Captain Kyle was born in Scotland, and came to the Sault in 1910 as engineer in charge of the construction of the merchant mill, and was later in charge of the construction of the gas engines. When that work was completed he joined the staff of the steel plant, and was placed in charge of maintenance.

In 1912 he was made general superintendent of operations, and in the fall of 1914 left the service of the company and went overseas and served in the war, during which he won the Military Cross. In 1917, by special arrangement with the military authorities in London, Captain Kyle was allowed to come back to Canada, and again take his place in the executive offices of the steel company, and two years ago, when Mr. Franz came back to the Sault from Cleveland, Captain Kyle was elected a director and vice-president of the steel company. Mr. Kyle was about thirty-six years of age, and his death brings a distinct loss to the steel plant and to the city.

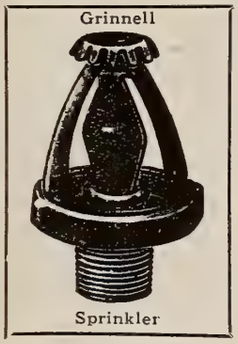
B.C. Box Manufacturers

An Organization Formed at the Coast as a Section of the Canadian Manufacturers Association

As the outcome of a meeting of the box manufacturers of British Columbia, a decision was reached to affiliate themselves with the Canadian Manufacturers Association and form a Box Manufacturers' Section. The section starts out with a membership of nine manufacturing firms out of a total in the province of seventeen, and it is hoped before long that the others will come in.

The objects for which this section was formed are the building up of the export trade of box shooks in the province, and the maintenance of standards in sizes and quality of packages for various commodities shipped from the province, the principal of which are fruit and fish. There is also a big demand for box shooks in the United Kingdom, South Africa, Australia, New Zealand, Mexico and South America, and it is felt that by getting together they will be in a better position to meet the transportation difficulties in connection with this export trade.

The officers of the section are: R. B. Sharp, of the Pacific Box Co., Vancouver, Chairman; W. B. Mitchell, of the Cameron Lumber Co., Victoria, and D. Lloyd-Jones, of the Kelowna Saw Mill Co., Vice-chairman; J. H. McDonald, of the British Columbia Manufacturing Co., New Westminster. Treasurer; Hugh Dalton, Secretary.



Save Fifty TO Ninety Per Cent.

of your insurance premiums and eliminate all fire worries by having us protect your factory and its output with an

Automatic Sprinkler System

Your savings in insurance premiums buy the complete system on our participating plan.

CONSULT US

Heating and Power Plants

Designed, installed or remodelled to reduce your maintenance cost to a minimum.

Expert advice given in all branches of Plumbing, Heating and Sprinkler Work.

PURDY, MANSELL LIMITED
Engineers and Contractors
63 ALBERT ST. TORONTO, CAN.



SPRINKLER TANKS and TOWERS

also wood and steel tanks for Municipal, Railway and Suburban water supply.

All our tanks and towers are built to pass inspection of any Board of Fire Underwriters.

Send for special tank and tower catalogue.

GALVANIZING HOT AND ELECTRIC

We do all kinds of hot and electro galvanizing for the trade. Our plant is one of the largest in Canada and our charges reasonable.

Write us for quotations on your galvanizing work.

Ontario Wind Engine & Pump Co., Limited
TORONTO MONTREAL WINNIPEG CALGARY

T H-E

Plenty of Light Need Not Mean Extravagance in Lamps

Without good light, and plenty of it, no workman can do his best work. Granted! But how about the expense? Needn't be anything but economy in every sense of the word if you use Toronto Hydro Lamp Service. We not only have the best lamps obtainable but we will gladly offer suggestions as to how to use them if required. Our representative will gladly call without obligating you to purchase.

Toronto Hydro-Electric System

226-8 Yonge Street
Phone Adelaide 2120

Branch: Gerrard and Carlaw
Phone Gerrard 761

Catalogues and Booklets

Pratt Ballast Cleaner

A new development in the line of link-belt labor-saving machinery is described in a folder just issued by the Link-Belt Company. This is the Pratt Ballast Cleaner, a machine for use on railways, which speeds up ballast cleaning and at the same time reduces labor cost. The machine is described in detail, with a number of explanatory illustrations.

Sectional Construction

The Harris Wood Products Co., Limited, Toronto, issue an attractive catalogue, illustrating and describing their system of sectional frame construction. This system applies bridge-building methods to all manner of frame construction. Houses, etc., are built in standardized, interchangeable sections, these sections being complete in themselves and of a size convenient to handle. Also the buildings can be put up most economically.

THE
New Zealand Shipping Company Limited
CANADA
TO
Australia and New Zealand

Regular monthly sailings from Montreal in summer and St. John in winter, calling at Auckland, Wellington, Lyttelton and Dunedin (New Zealand) and Melbourne and Sydney (Australia). Sailings 20th of eachmonth.

Through bills of lading issued to all points in Australia, New Zealand, Tasmania and other islands of Oceania.

Marine Insurance effected at rates equal to those given from New York.

For rates and other information apply to
The New Zealand Shipping Co.
LIMITED
213 Board of Trade Building, Montreal

High-Class Art Work

Small scale productions in full colors of the three Victory Loan posters, designed by the Art Department of Rous & Mann, Limited, Toronto, have been sent out by this company in a handsomely prepared folder, for the purpose of demonstrating the character of the work of which the Art Department is capable. The designs and workmanship afford convincing evidence of the capabilities of the company, both in the creation and execution of advertising designs.

Anglin-Norcross Calendar

A neat little calendar, the feature of which is a series of illustrations of fourteen buildings erected by the company, has been sent out by Anglin-Norcross, Limited, contracting engineers, Montreal, Toronto and Halifax. Several industrial plants are included in the series.

Electric Steel Furnaces

Catalogue No. 2 of the Volta Mfg. Co., Limited, Welland, contains an interesting foreword on the growth of the electric steel industry, followed by a complete description of the "Volta" furnace. At the end of 1919 it is estimated that 815 electric furnaces were in operation or installed throughout the world for the production of electric steel ingots and castings, of which number 330 are in Canada and the United States. In 1910 there were only 114 furnaces, of which 13 were in Canada and the United States. The production of electric steel castings has been very marked, while it is readily seen that the electric furnace is rapidly replacing the crucible process.

Seventy-Year Development

With the title "Inter-related Industries," the Grinnell Company, Inc., have produced a handsomely designed booklet, giving a brief story of the seventy-year development of several inter-related industries, founded on industrial piping. It is explained at the outset that the company's former name, the General Fire Extinguisher Co., was misleading in that it connoted fire protection, whereas the company was also a producer on a large scale of heating, power piping and specialties, drying, etc. The history of the organization, from its inception in 1850, is traced and its various productions explained. The plants operated, including those of the Grinnell Co. of Canada, Limited, at Toronto and Montreal, are illustrated, and altogether a most comprehensive idea of the activities of the company are given.

GEO. McMURRICH SONS LIMITED
22 TORONTO STREET, TORONTO
EXPORT MARINE IMPORT
INSURANCE
INCLUDING LOSS BY MINES AND STRIKES

CANADIAN PACIFIC



EACH WAY - EVERY DAY
TORONTO - VANCOUVER
FROM TORONTO - 10 p.m. DAILY

STOPS AT AND CONNECTS FOR PRINCIPAL POINTS

Standard Sleepers, Dining Car, Tourist Sleepers, Compartment Observation Car, First-class Coaches and Colonist Car.

The most beautiful scenery in Canada is along the line of the Canadian Pacific. Magnificent Rocky Mountain Resorts at Banff, Lake Louise and Glacier.

Passengers for California should arrange their trip to include the Canadian Pacific Rockies

CANADIAN PACIFIC HOTELS IN WESTERN CANADA OPEN ALL THE YEAR ROUND

"Royal Alexandra," Winnipeg; "Palliser Hotel," Calgary; "Vancouver Hotel," Vancouver; "Empress Hotel," Victoria.

Particulars from Canadian Pacific Ticket Agents. **W. B. HOWARD**, District Passenger Agent, Toronto.

Canada-South Africa
Direct Service

Regular monthly sailings from Montreal in Summer and St. John, N.B., in Winter, calling at Cape Town, Algoa Bay (Port Elizabeth), East London, Port Natal (Durban) and Delagoa Bay in the order named.

Sailings 20th of each month.

All steamers fitted with refrigerators for the carriage of perishable freight.

For rates of freight and other information apply to

ELDER DEMPSTER & CO., Limited
133 BOARD OF TRADE BUILDING - - MONTREAL
Toronto Agent: S. J. SHARP, 79 Yonge St., Royal Bank Bldg.

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EXPORT **M.P. & B.** IMPORT

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Freight handled to or from any part of the World.

FREIGHT **RATES** QUOTED
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STEAMER **SPACE** ENGAGED

Insurance effected Passenger Agents
Customs Entries promptly passed.

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LONDON, LIVERPOOL, MANCHESTER, BIRMINGHAM, SHEFFIELD, DUNDEE, BRADFORD, WALSALL, HANLEY, HULL, MIDDLESBORO, CARDIFF, BELFAST, GLASGOW, PARIS, ANTWERP, NEW YORK, DETROIT, PHILADELPHIA

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Freight and Transport Contractors

MONTREAL
308 St. Nicholas Bldg.
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Cable Address "HEADSHIP" for all offices

Recent Trade Enquiries

A List of Enquiries Received from Various Sources including the Canadian Trade Mission, London; the Canadian Trade Commission, Ottawa; the Department of Trade and Commerce, Ottawa; and the Commercial Intelligence Department, C.M.A., Toronto.

300. Greece.—A firm in Greece state that they are principally interested in barley, oats, flour, canned foods and biscuits, salmon, herrings, etc.; meats of all kinds, newsprint, paper for books, ledgers, etc., shoes, waterproofs, varnishes, nails, sows, kitchen utensils, woolen goods, and men's clothing. They would be obliged if Canadian concerns would communicate with them and inform them of the conditions of payment and the dates on which they would be able to ship goods. They point out that they are in a position to give the highest reference from banks in Greece.
301. London.—A London company who are about to commence a campaign with a view to popularizing electrical labor-saving devices and specialties wish to get into touch with Canadian manufacturers of such lines, looking for an outlet in the United Kingdom.
302. Athens, Greece.—A company in Athens is desirous of getting in touch with Canadian suppliers of all classes of merchandise suitable for the Eastern market. The company state that they are in a good position to finance the transaction and that they would be prepared to place sample orders. They add that they are in a position to furnish references of the highest order.
303. London.—An old-established London firm of gold and silver refiners are desirous of obtaining from Canada supplies of silver residues from photographic hypo-solutions and also of any other waste material containing precious metal.
304. Raw Leaf Tobacco.—A London firm of tobacco merchants seek supplies of raw leaf tobacco and invite offers from Canadian shippers.
305. Ireland.—A firm in Ireland ask for the addresses of Canadian manufacturerers of Portland cement-making machinery, automobiles, automobile accessories and also maple sugar, who are desirous of shipping direct to Ireland.
306. Enamelled Ware, etc.—A manufacturers' agent in London is open to purchase outright supplies of the following goods: Enamelled ware, veneer chair seats, electrical accessories, and good quality silk and artificial silk hosiery.
307. Wooden Spools.—A London firm seeks supplies of wooden spools for sewing cotton, and ask to be placed in touch with Canadian manufacturers.
308. Australia.—A firm in Sydney, Australia, is desirous of securing the agency for Canadian manufactures in any of the following lines: Enamelled ware, tools of all kinds, valves, and wrought iron piping fittings, forks and hoes, gas and electric fittings, brushware, hardware, celluloid goods, aluminum ware.
309. Dowels.—A Glasgow furniture manufacturer asks to be placed in touch with exporters of ⅜-inch dowels.
310. Chair Legs, etc.—A Glasgow firm asks to be placed in touch with exporters of turned chair feet, stumps for chair feet, chair legs, etc., in oak, white wood, beech, or birch, mainly the last. Samples of requirements will be furnished.
311. Picture Moulding.—A Glasgow firm asks to be placed in touch with manufacturers of the above.
312. Nets for Trawlers.—A Leith firm asks to be placed in touch with manufacturers of the above.
313. Carpet Brooms.—A Glasgow firm are open to accept an agency for the above.
314. Powdered Maize, etc.—A Glasgow importer asks to be placed in touch with manufacturers of the above, with the object either of buying, or of arranging an agency.
315. Wood Pulp Board.—A Glasgow firm asks to be placed in touch with manufacturers of semi-waterproof wood-pulp board, for making oyster pails, etc.
316. Mexican Cedar, etc.—A well recommended and established firm in Mexico is anxious to open up business relations with importers and manufacturers in Canada interested in the above. They are prepared to supply cedar in any quantity desired, cut into lengths to suit the purchaser. At present they are supplying the local market with the product sawn into planks 1 and 2 inches thick and 12 feet in length. Present price is 12c. U.S. Cy. per square foot, f.o.b. cars or ship.
317. Paper.—A Dublin firm claiming a connection with the newspaper industry throughout Ireland, is desirous of securing the agency of Canadian manufacturers of newsprint and of all kinds of printing paper.
318. Canned Fruit.—A London company who wish to place large orders for Canadian canned fruits for delivery next summer, would be glad to hear from Canadian packers.
319. Brazil.—A commission agent in Rio Janiero, who already represents one Canadian manufacturer, is desirous of securing the agency for one or two manufacturers of newsprint.
320. Electric Meters.—A London company wish to be placed in correspondence with Canadian manufacturers of electric house service meters.
321. Canned Goods.—A London firm, who wish to purchase supplies of Canadian canned goods, particularly salmon, lobster, condensed milk, and fruits, are sending out a representative who will reach Canada about the end of January and will be glad to hear from packers interested in his Canadian address.

Exporters :

Ship Canadian National

"All the Way"

Canadian exports should be transported in Canadian box cars and Canadian ships

The people of Canada are the proprietors, through the Government, at Ottawa, of a fleet of commerce carriers designed to carry products from the Dominion to all ports on all the seven seas where Canadian goods can find a market.

Twenty-three vessels of a programme of sixty are already in service:

SAILINGS, 1920

(Subject to change without notice)

Liverpool Service.

From Halifax, N.S.

Voy.	On or about
No. 4—Canadian Miller	Mar. 25th

From St. John, N.B.

No. 5—Canadian Ranger	Mar. 12th
No. 7—Canadian Voyageur	Apr. 12th
No. 6—Canadian Ranger	Apr. 30th

London Service.

From St. John, N.B.

No. 3—Canadian Navigator	Apr. 15th

Glasgow Service.

From Halifax, N.S.

No. 2—Canadian Settler	Mar. 18th
No. 3—Canadian Aviator	Apr. 22nd

Buenos Aires Service.

(Calling at Pernambuco, Rio de Janeiro, Santos, Brazil, if sufficient cargo offering.)

From Halifax, N.S.

No. 1—Canadian Spinner	Mar. 5th

Havana, Cuba, Service.

From Halifax, N.S.

Voy.	On or about
No. 5—Canadian Trader	Mar. 10th
No. 5—Canadian Sailor	Mar. 16th

From St. John, N.B.

No. 3—Canadian Sower	Mar. 10th
No. 4—Canadian Adventurer	Mar. 15th
No. 4—J. A. McKee	Mar. 22nd

Kingston, Jamaica Service.

From St. John, N.B.

No. 3—Thos. J. Drummond	Mar. 12th
No. 6—Canadian Warrior	Apr. 6th

Barbados, Trinidad and Demerara Service.

From Halifax, N.S.

No. 4—Canadian Signaller	Feb. 29th
No. 3—Canadian Gunner	Apr. 2nd
No. 5—Canadian Signaller	Apr. 24th

Australian and New Zealand Service.

(Calling at Sydney and Melbourne, Aus., and Auckland and Wellington, N.Z.).

From Vancouver, B.C.

No. 1—Canadian Exporter	Mar. 11th

And regularly thereafter.

These vessels of the Canadian Government Merchant Marine, Limited, are being operated under the direction of Canadian National Railways. The two combined—rails and ships—constitute Canada's great adventure in public ownership. If shippers in Canada support their own box cars and vessels as they deserve to be supported, the adventure will certainly be crowned with success.

GET THE "NATIONAL" HABIT

Any Canadian railway agent can furnish information about rates and space, or

D. O. WOOD, Traffic Manager, Export and Import Dept.,
Canadian National Railways, Toronto, Ontario.

Canadian National Railways





322. Dowels.—A London firm of timber merchants wish to purchase Canadian dowels to the following specifications, and invite quotations f.o.b. or c.i.f. London, cash against bill of lading from Canadian manufacturers able to fill orders: First quality white birch dowels, which must be absolutely round and dry and free from knots, 3-16-in. x 36-in., 5-16-in. x 36-in., 7-16-in. x 36-in., ½ x 36-in. Quantities from 20,000 to 50,000 of each size, or any one carload at a time or any less quantity to suit output of mill.

323. Automobile Parts, etc.—An automobile manufacturer and merchant in the north of England, who is visiting Canada in the spring, is prepared to consider the handling of Canadian automobile parts and accessories suitable to the requirements of the United Kingdom, and in the meantime would be glad to hear from Canadian manufacturers who would like to see him.

324. Wooden Handles.—A company in the north of England would be glad to hear from Canadian manufacturers of wooden handles (broom, tool, implement, etc.), in a position to fill export orders.

325. Shanghai.—A leading firm in Shanghai, China, desires to be put in touch with textile, chemical and hardware manufactures in Canada, who are in a position to export to China.

326. Australia.—A contractor of Australia is desirous of getting particulars of Canadian manufactures in the following lines of builders' hardware, viz.: Lock sets, window furnishings, screws, nails, water pipe and fittings, household hardware.

327. Argentina.—A gentleman in Buenos Aires, whose knowledge of that country extends over twenty years, wishes to get into communication with Canadian manufacturers who wish representation in that country. He can furnish sound bankers' and commercial references.

328. India.—A company has been formed in Bombay for the purpose of developing trade between India and the various African colonies. It is not, however, intended to restrict the company's operations to this class of trade only. They will be pleased to represent or enter into business correspondence with any colonial firms who are anxious to develop trade in either India or Africa.

329.—Buenos Aires.—A gentleman in Buenos Aires wishes to represent some Canadian manufacturer in the Argentine. He is at present assistant manager in Argentina to an important contracting company of London, and would only leave them to take up a more important post. He has a fluent knowledge of the Spanish language and is thoroughly acquainted with the commercial, legal and general conditions ruling in the Southern Republics of South America. His references are first class.

330. Valves, etc.—An Australian engineering and contracting concern in good standing and well rated, are anxious to get into communication with manufacturers of valves, pressure gauges and all small fittings used in connection with hollow wire lighting systems; also would like to hear from makers of globes for gas lighting fixtures.

331.—Paris.—An importer and exporter in Paris is anxious to get in touch with manufacturers of electrical appliances of all sorts for household use, such as electric heaters, irons, toasters, also interested in marine motors from 3 to 50 h.p., and lighting plants for farms. English is understood.

332. Foodstuffs, etc.—Old established importers in the Orient would like to receive offers on condensed milk, canned goods, woolen goods, cotton goods, underwear, hosiery, shoes, etc. English is understood.

333. Fruit and Vegetable Choppers.—A large French wholesale concern, dealing in household goods, is in the market for fruit, vegetable and meat choppers. French correspondence.

334. Leather.—An importer of leather hides and skins, owning a tannery in Belgium, would like to represent some well known Canadian manufacturers of this commodity. French correspondence.

335. Soap.—A British importer is anxious to get in touch with manufacturers of soap of all kinds.

336. Manicure Outfits, etc.—Italian importers and representatives of British concerns would like to hear from manufacturers of manicure outfits, silk hosiery, hair ornaments, safety pins, collar buttons and notions in general. English is understood.

337. Groceries, etc.—Western Australian indent merchants and manufacturers' agents wish to get in touch with exporters of groceries, confectionery, paper, twine, general farming requisites, etc.

Representation in France

Mr. Gaston Vennat, of Bordeaux, in a Position to Act as Agent for Canadian Firms

Canadian manufacturers desiring representation in France might get in touch with Mr. Gaston Vennat, 10 Cour de Gourgue, Bordeaux. Mr. Vennat is a Frenchman who returned to France after making a substantial fortune in Canada. While here he represented French firms and did a large business. He is a member of the Montreal Board of Trade and of the Chambre de Commerce, and is in a position to guarantee his sales by the deposit of a large amount of Canadian securities.

Minister:
Hon. W. R. Rollo

Department of Labour
ONTARIO GOVERNMENT

Deputy Minister:
W. A. Riddell, Ph.D

INVESTIGATION AND RESEARCH

The Department is the provincial centre for investigation and research in matters connected with labour. Pamphlets on vocational opportunities for boys and girls in the industries of the Province are being prepared. A report upon the Mothers' Pensions investigation undertaken by the Department is now in the hands of the printer. Legislation affecting industry is continually under consideration.

ADMINISTRATION OF

1. The Stationary and Hoisting Engineers' Act.
2. The Factory, Shop and Office Building Act.
3. The Steam Boiler Act.
4. The Building Trades Protection Act.
5. The Employment Agencies Act.
6. The Bureau of Labour Act.

Ontario Government Employment Bureaus
(Employment Service of Canada)

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Shingle Stain Oils

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TAR DISTILLERIES

SAULT STE. MARIE, Ont. SYDNEY, N.S.

Address all communications to Sales Office
400 McKinnon Bldg. - Toronto, Ont.

Buyers' Guide to Canadian Manufactures

List of Articles which will Enable the Purchaser to Know the Manufacturers of Made-in-Canada Goods. Rates for insertion in this department, $4.00 per heading per year (12 insertions).

ABRASIVES
*Canadian Hart Wheels, Limited, Hamilton, Ont.
*Dominion Abrasive Wheel Co., New Toronto, Ont.

ACCOUNT BOOKS
*The Brown Bros., Ltd., Toronto.

ACCUMULATORS, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.

ACETYLENE GAS
*The Prest-O-Lite Company of Canada, Ltd., Toronto, Ont.

ACETYLENE GAS BURNERS
Economic Acetylene Burner Co., Toronto, Ont.
*The Prest-O-Lite Company of Canada, Ltd., Toronto, Ont.

ACID PROOF COATINGS
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

ACIDS
*The Grasselli Chemical Co., Ltd., Toronto.
*The Nichols Chemical Co., Ltd., Montreal, Que.

ADVERTISING NOVELTIES
Lawson & Jones, Ltd., London, Ont.

ADVERTISING SIGNS
Cross Press & Sign Co., Ltd., Woodstock, Ont.

AERATED BEVERAGES
Charles Gurd & Co., Ltd., Montreal, Que.
J. J. McLaughlin, Ltd., Toronto.

AIR COMPRESSORS
*Canadian Ingersoll-Rand Co., Montreal, Que.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

AIR LIFT PUMPS
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.

ALCOHOL
*Canadian Industrial Alcohol Company, Ltd., Montreal, Que.

ALUMINUM
*Northern Aluminum Co., Ltd., 1805 Traders Bank, Toronto,

ALUMINUM CASTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.

AMMONIA
Canadian Ammonia Co., Ltd., Toronto, Ont.

ANCHORS, all steel
Beauchemin & Fils, Ltd., Sorel, Que.

ANGLE BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, Que.
*The Steel Company of Canada, Ltd., Hamilton, Ont.

ARSENIC
*Deloro Smelting & Refining Co., Limited, Deloro, Ont.

ARTIFICIAL LIMBS
Chesley Artificial Limb Co., Ltd., Hantsport, N.S.

ASBESTOS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS SHEATHING
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS SHEET AND PISTON PACKINGS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS STEAM PIPE AND BOILER COVERINGS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS TEXTILES
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

AUTOMOBILE ACCESSORIES
*McKinnon Industries Limited, St. Catharines, Ont.
*Northern Electric Co., Limited, Montreal, Que.
*Tallman Brass & Metal Co., Hamilton, Ont.

AUTOMOBILE PARTS
*Dominion Forge & Stamping Co., Walkerville, Ont.

AWNING CORD (cotton)
Hamilton Cotton Co., Hamilton, Ont.

AXLES
Canada Forge Co., Ltd., Welland, Ont.
Guelph Spring & Axle Co., Ltd., Guelph, Ont.

AXLES, carriage and automobile
Guelph Spring & Axle Co., Ltd., Guelph, Ont.

BABBITT METAL
Alonzo W. Spooner, Ltd., Port Hope, Ont.
*Hoyt Metal Co., Toronto, Ont.
*The Canada Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BACON
F. W. Fearman Co., Ltd., Hamilton, Ont.

BAGS, Cotton
The Canadian Bag Co., Limited, Montreal, Que.

BAGS, jute
The Canadian Bag Co., Limited, Montreal, Que.

BAGS, travelling
J. Eveleigh & Co., Ltd., Montreal.
Lamontague, Ltd., Montreal, Que.
*The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.

BAND RESAWS
*Canada Machinery Corporation, Limited, Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

BAND SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

BANK FITTINGS
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.

BANK AND OFFICE RAILINGS AND CAGES
*Canada Wire and Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*The Geo. B. Meadows, Toronto, Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.

BANK SIGNS AND FITTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.

BARRELS, steel, and containers
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

BARS, iron
London Rolling Mill Co., Ltd., London, Ont.

BARS, steel
London Rolling Mill Co., Ltd., London, Ont.

BASEBALL GOODS
A. J. Reach Co., Brantford, Ont.

BATHS, enamelled
Amherst Foundry Co., Ltd., Amherst, N.S.

BATTERIES, dry
*The Canadian National Carbon Co., Ltd., Toronto, Ont.

BATTERIES, Flashlight
*The Canadian National Carbon Co., Ltd., Toronto, Ont.

BATTERIES, Storage
*The Canadian National Carbon Co., Ltd., Toronto, Ont.

BEARINGS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BEARINGS, bronze
*Tallman Brass & Metal Co., Hamilton, Ont.

BEARINGS, pillow block and upright
*Canadian Fairbanks-Morse Company, Ltd., Montreal, Que.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BEEF
F. W. Fearman Co., Ltd., Hamilton, Ont.

BELTING, chains
*Canadian Link-Belt Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BELTING, elevator
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.

BELTING, leather
The Beardmore Belting Co., Ltd., Toronto, Ont.
*J. L. Goodhue & Co., Danville, Que.
*The D. K. McLaren Belting Co., Ltd., Montreal, Que.
*The J. C. McLaren Belting Co., Ltd., Montreal, Que.

BELTING, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha and Rubber Ltd., Toronto, Ont.

BELTING, stitched cotton duck
*Dominion Belting Co., Ltd., Hamilton, Ont.

BENT GOODS
The Crown Lumber Co., Woodstock, Ont.

BISCUITS
The Montreal Biscuit Co., Montreal, Que.

BLACK SHEETS
*A. C. Leslie & Co., Montreal, Que.

BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
J. Walshaw & Son, Ltd., Bolton, Ont,

BLANKETS, horse
Slingsby Mfg. Co., Ltd., Brantford, Ont.
J. Walshaw & Son, Ltd., Bolton, Ont.

BLASTING ACCESSORIES
Canadian Explosives, Ltd., Montreal, Que.

BLEACHING POWDER
*Canadian Salt Co., Ltd., Windsor, Ont.

BLOWERS
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

BOARDS, paper, fibre, press
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOATS OF ALL KINDS
Peterboro Canoe Co., Ltd., Peterboro, Ont.

BOBBINS
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.

BOILER COMPOUND
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOILER COMPOUND AND OILS
Electric Boiler Compound Co., Ltd., Guelph, Ont.

BOILER GRAPHITE
Black Donald Graphite Company, Limited, Calabogie, Ont.

BOILER LININGS AND COVERINGS
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOILERS
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*Goldie & McCulloch Co., Limited, Galt, Ont.
*E. Leonard & Sons, Ltd., London, Ont.
J. & R. Weir, Montreal, Que.
Taylor-Forbes Co,, Ltd., Guelph,
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BOILERS, hot water or steam
Warden King, Ltd., Montreal.

BOILERS, steam
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BOILERS, steam and brass work
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BOILER STANDS
Anthes Foundry Ltd., Toronto.

BOLTS AND NUTS
*The Canadian Tube & Iron Co., Ltd., Montreal, Que.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Company of Canada, Ltd., Hamilton, Ont.

BOOKBINDERS
R. G. McLean, Toronto.
*The Brown Bros., Ltd., Toronto.

BOOKCASES
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

BOOKCASES, sectional (Gunn)
The George McLagan Furniture Co., Ltd., Stratford, Ont.

BOOKLETS
R. G. McLean, Toronto,

BOOKS, blank
*The Brown Bros., Ltd., Toronto.

BOOTS AND SHOES
J. Leckie Co., Ltd.
The John Ritchie Co., Ltd., Quebec, Que.

BOXES, cellular and fibre board
*Hinde & Dauch Paper Co. of Canada, Limited, Toronto.
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls.

BOXES, rattle and soap
The Arlington Co. of Canada, Ltd., Toronto, Ont,

BOXES, steel shop
*Steel Trough and Machine Co., Ltd., Tweed, Ont.

BOXES AND SHOOKS, wooden
The C. Beck Mfg. Co., Ltd., Penatanguishene, Ont.

BOXES, wooden
G. & J. Esplen, Montreal, Que.
Barchard & Co., Ltd., Toronto.

BRAKE SHOES
*Canadian Hart Wheels, Limited, Hamilton, Ont.

BRANDS, burning
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

BRASS BOLTS AND NUTS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS AND BRONZE WIRE
*Standard Underground Cable Co. of Canada, Ltd., Hamilton. Ont.

BRASS, BRONZE and ALUMINUM LETTERS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS ENGRAVERS
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

BRASS FOUNDERS AND FINISHERS
*The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS GOODS
*The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
*The Kerr Engine Co., Limited, Walkerville, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS PLATES
*Tallman Brass & Metal Co., Hamilton, Ont.

*For Display Advertisement see Index, Page 45

BRASS RODS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS RODS, SHEETS AND PLATES
*Brown's Copper and Brass Rolling Mills, Ltd,, New Toronto.

BRASS SHEETS AND PLATES
*Dominion Copper Products Company, Ltd., Montreal, Que.

BRASS SIGNS AND MEMORIALS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS TUBING, seamless
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Company, Ltd., Montreal, Que.

BRASS WIRE
Canadian Seamless Wire Co., Ltd., Toronto.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS WORK, church
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

BRASS WORK, special
*Tallman Brass & Metal Co., Hamilton, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BRICK
*Interprovincial Pressed Brick Co. of Canada, Limited, Toronto.
National Brick Co. of Laprairie, Laprairie, Que.
Port Credit Brick Co., Port Credit, Ont.
The Citadel Brick & Paving Block Co., Ltd., Quebec, Que.

BRICK, enamel
National Brick Co. of Laprairie, Laprairie, Que.

BRICK, pressed
National Brick Co. of Laprairie, Laprairie, Que.
The Citadel Brick & Paving Block Co., Ltd. Quebec, Que.

BRICK, rubbing
*Canadian Hart Wheels, Limited, Hamilton, Ont.

BRICK, sewer.
National Brick Co. of Laprairie, Laprairie, Que.

BRIDGES, Railway and Highway
*Canadian Des Moines Steel Co., Limited, Chatham.
*Hamilton Bridge Works Co., Ltd,, Walkerville, Ont.
*The Canadian Bridge Co., Ltd., Hamilton, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*Dominion Bridge Co., Montreal.
*Mackinnon Steel Co., Ltd., Sherbrooke, Que.

BROOMS
Simms, T. S., & Co., Limited, St. John, N.B.
Stevens-Hepner Co., Limited, Port Elgin, Ont.

BRONZE SHEETS, RODS, PLATES
*Dominion Copper Products Company, Ltd., Montreal.

BRONZE SHEETS, RODS, PLATES
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.

BRONZE TUBING, seamless
*Dominion Copper Products Company, Limited, Montreal,

BRUSHES
Simms, T. S., & Co., Limited, St. John, N.B.
Stevens-Hepner Co., Ltd., Port Elgin, Ont.

BRUSHES, carbon
*Canadian National Carbon Co., Ltd., Toronto.

BUCKET TANKS
*MacKinnon Steel Co., Ltd,, Sherbrooke, Que.
*The Bennett & Wright Co., Ltd., Toronto, Ont.

BUCKLES, shoe and coat
Parmenter & Bulloch Co., Limited, Gananoque, Ont.

BUILDING FELT AND PAPER
*Beveridge Paper Co., Ltd., Montreal.
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont,
*The Barrett Co., Ltd., Toronto and Montreal.

BUNGS, wooden for barrels
Wm. H. White, Ville St. Pierre, Montreal, Que.

BURLAPS
The Canadian Bag Co., Limited, Montreal, Que.

BURLAPS, decorative
Dominion Oil Cloth Co., Limited, Montreal, Que.

CABLES, electric light, power, telephone and telegraph
*Northern Electric Company, Limited, Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd,, Hamilton, Ont.

CABLES, transmission and telephones
*Northern Electric Company, Limited, Montreal, Que.

CABLES, transmission and cable
*Northern Electric Co., Ltd., Montreal, Que.

CABLES, wire
*The Dominion Wire Rope Co., Ltd., Montreal, Que.
*The B. Greening Wire Co., Ltd., Hamilton, Ont.

CALENDARS, ADVERTISING NOVELTIES, etc.
Lawson & Jones, Ltd., London.

CAMERAS
Canadian Kodak Co., Ltd., Toronto, Ont.

CAMPERS' OUTFITTERS
Slingsby Mfg. Co., Ltd., Brantford, Ont.

CANADA SILVER
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.

CANOES
Peterboro Canoe Co., Ltd., Peterboro, Ont.

CANS, baking powder, etc.
American Can Co., Montreal (Que.) and Hamilton (Ont.).
A. R. Whittall Can. Co., Ltd., Montreal, Que.
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CANS, fruit
American Can Co., Montreal (Que.) and Hamilton (Ont.).
A. R. Whittall Can. Co., Ltd., Montreal, Que.
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CANS, iron, lead and putty
A. R. Whittall Can. Co., Ltd., Montreal, Que.

CANS, tin
A. R. Whittall Can Co., Ltd., Montreal, Que.
American Can Co., Montreal (Que.) and Hamilton (Ont.).
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CAPS, cloth
John W. Peck & Co., Ltd., Montreal, Que.

CARBIDE
*Canada Carbide Co., Ltd., Montreal. Que.

CARBONS, electric
*Canadian National Carbon Co., Ltd., Toronto, Ont.

CARBONIC ACID GAS
*Canadian Carbonate Co., Montreal.

CARD RECORD SYSTEMS
Lowe-Martin Co., Ltd., Ottawa, Ont.
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

CARPETS AND RUGS
Toronto Carpet Mfg. Co., Limited, Toronto.

CARPET FELTS, plain and corrugated
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

CARRIERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.

CARRIERS, box and barrel
*Canadian Mathews Gravity Carrier.

CARRIERS, brick
*Canadian Mathews Gravity Carrier Co., Limited, Toronto.
*Richards-Wilcox Canadian Co., Ltd., London, Ont.

CARS
*National Steel Car Co., Ltd., Hamilton, Ont.

CARS, industrial
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.

CARTONS, lithographed
Harris Lithographing Co., Ltd., Toronto, Ont.

CASTINGS, Alloy
*The Electric Steel & Metals Co., Ltd., Welland, Ont.

CASTINGS, aluminum, brass and bronze
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

CASTINGS, grey iron
*Canadian Rumely Co., Ltd., Toronto, Ont.
*Dodge Mfg. Co., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*Wm. Kennedy & Sons, Ltd., Owen Sound, Ont.

CASTINGS, malleable iron
*Galt Malleable Iron Co., Ltd., Galt, Ont.

CASTINGS, steel
Beauchemin & Fils, Ltd., Sorel, Que.
*Canadian Steel Founderies, Ltd., Montreal, Que.
*Dominion Foundries and Steel Co., Ltd., Hamilton, Ont.
*Electric Steel & Metals Co., Ltd., Welland, Ont.
*Wm. Kennedy & Sons, Ltd., Owen Sound, Ont.

CATALOGUE MAKERS
Grip, Ltd., Toronto, Ont.

CATALOGUE COVERS, by new lithographing process
Harris Lithographing Co., Ltd., Toronto, Ont.

CAUSTIC SODA
*Canadian Salt Co., Ltd., Windsor.

CELLBOARD
*Adams Cellboard Co., Toronto.

CEMENTS, High Temp.; plastic, liquid
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

CENTRIFUGAL PUMPS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

CHAINS, for elevators, conveyors and drives
*Canadian Link-Belt Co., Toronto

CHAIRS
*Office Specialty Mfg. Co., Ltd. Newmarket, Ont.

CHAIRS, assembly hall
Stratford Mfg. Co., Ltd., Stratford, Ont.

CHAIRS, folding
Stratford Mfg. Co., Ltd., Stratford, Ont.

CHAIRS, rattan and upholstered
Imperial Rattan Co., Ltd., Stratford, Ont.

CHEMICALS
Canadian Laboratory Supplies, Ltd., Toronto, Ont.
*The Grasselli Chemical Co., Ltd., Toronto, Ont.
*The Nichols Chemical Co., Ltd., Montreal, Que.

CHEMISTS, industrial
*Milton Hersey Co., Montreal.

CHICLETS AND CHEWING GUM
Canadian Chewing Gum Co., Ltd., Toronto, Ont.

CIRCULAR CUTTERS, solid steel
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.

CIRCULAR SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

CLAM SHELL BUCKETS
*Canadian Mead Morrison Co., Ltd., Montreal, Que.

CLAY, Ground.
*Interprovincial Brick Co. of Canada, Limited, Toronto.

CLOCKS, time
*International Business Machines Co., Ltd., Toronto.

CLOCKS, watchmen's
*The Bennett & Wright Co., Ltd., Toronto, Ont.

CLOSET SEATS
*Goderich Organ Co., Goderich,Ont.

CLOTHING
John W. Peck & Co., Ltd., Montreal, Que.

CLOTHING, leather and sheepskin lined coats
*A. R. Clarke & Co., Ltd., Toronto.

CLOTHING, Mackinaw
The Carss Mackinaw Clothing Co., Ltd., Orillia, Ont.

CLOTHES LINES, cotton
Hamilton Cotton Co., Hamilton, Ont.

CLUTCHES
*Dodge Mfg. Co., Ltd., Toronto.

CLUTCHES, conveyors
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

COAL
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Standard Fuel Co., Toronto, Ont.

COBALT OXIDE
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
The Coniagas Reduction Co., Ltd., St. Catharines, Ont.

COBALT METAL
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.

COFFEE
S. H. Ewing & Sons, Montreal.

COLD DRAWN SHAPES, flats, squares and hexagons
*The Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*Union Drawn Steel Co.. Ltd., Hamilton, Ont.

COLD STORAGE DOORS
John Hillock & Co., Ltd., Toronto.

COLLAR BUTTONS
The Arlington Co. of Canada, Ltd., Toronto, Ont.

COLLARS, coated linen
Parsons & Parsons Canadian Co., Hamilton, Ont.

COLORS
*A. Ramsay & Son Co., Montreal.

COMBS, fine dressing and name
The Arlington Co. of Canada, Ltd., Toronto, Ont.

COMMERCIAL STATIONERY
*Brown Bros., Ltd., Toronto, Ont.

CONCRETE COATINGS, PAINTS, Etc.
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.

CONCRETE HARDENER AND WATERPROOFER
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
Sturgeons Limited, Toronto.

CONDUITS FOR INTERIOR WIRING
*Conduits Co., Ltd., Toronto, Ont.

CONDENSERS, Barometic
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.

CONFECTIONERY
Ganong Bros., Ltd., St. Stephens, N.B.
Moirs, Ltd., Halifax, N.S.
The Montreal Biscuit Co., Montreal, Que.

CONTAINER BOARD—strong container
*Bathurst Lumber Co., Ltd., Bathurst, N.B.

CONTRACTOR'S PLANT
*Canadian Mead Morrison Co., Ltd., Montreal, Que.

CONVEYORS
*Canadian Link-Belt Co., Toronto.
*Canadian Mathews Gravity Carrier Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.

COPPER
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Consolidated Mining & Smelting Co. of Canada, Ltd., Montreal.

COPPER, SHEETS, PLATES, BARS, RODS
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Co., Ltd., Montreal, Que.

COPPERSMITHS
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.

COPPER TUBING, seamless
*Dominion Copper Products Co., Ltd., Montreal, Que.
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.

* For Display Advertisement see Index, Page 45

COPPER WIRE
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
CORKS
S. H. Ewing & Sons, Montreal, Que.
CORK CARPET
Dominion Oil Cloth Co., Ltd., Montreal, Que.
CORRUGATED PAPER BOXES
*Hinde & Dauch Paper Co. of Canada, Limited, Toronto.
*Adams Cellboard Co., Toronto.
Corrugated Paper Box Co., Ltd., Toronto, Ont.
*Hinde & Dauch Paper Co., Toronto, Ont.
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.
CORSETS
Dominion Corset Co., Quebec, Que.
COTTONS
*Montreal Cottons, Ltd., Valleyfield, P.Q.
COTTONADES
Hamilton Cotton Co., Hamilton, Ont.
COUPLERS
*Canadian Steel Foundries, Ltd., Welland, Ont.
COUPLINGS
*Dodge Mfg. Co., Ltd., Toronto.
CRANES
*Northern Crane Works, Walkerville, Ont.
*The Herbert Morris Crane and Hoist Co., Ltd., Niagara Falls, Ont.
CRANKSHAFTS
Canada Forge Co., Ltd., Welland, Ont.
CREAM CHEESE, Ingersoll
The Ingersoll Packing Co., Ltd., Ingersoll, Ont.
CREAM SEPARATORS AND MILK CLARIFIERS
De Laval Dairy Supply Co., Peterboro, Ont.
CREAMERY AND CHEESE FACTORY MACHINERY AND SUPPLIES
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
CREOSOTED MATERIALS
*The Barrett Co., Ltd., Toronto and Montreal.
CRUSHERS, Rock and Ore
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
CUPOLAS
*Northern Crane Works, Ltd., Walkerville, Ont.
CUPS, presentation
Standard Silver Co., Toronto, Ont.
CURTAINS, chenille
Hamilton Cotton Co., Hamilton, Ont.
CUTLERY
Standard Silver Co., Toronto, Ont.
CUTTERS, machine
*Pratt & Whitney Co., Dundas, Ont.
DECALCOMANIA TRANSFERS
Canada Decalcomania Co., Toronto, Ont.
DENIMS
Hamilton Cotton Co., Hamilton, Ont.
DERAILS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
DESIGNERS AND PRINTERS OF BOOKLETS, Etc.
Grip, Ltd., Toronto, Ont.
DESKS
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
DESICCATED VEGETABLES
Grahams, Ltd., Belleville, Ont.
DINING ROOM SUITES
The George McLagan Furniture Co., Ltd., Stratford, Ont.
DIES
*Butterfield & Co., Rock Island, P.Q.
*Pratt & Whitney Co., Dundas, Ont.
DISINFECTING APPARATUS
Spramotor Co., London, Ont.
DOOR HANGERS
*Richards Wilcox Canadian Co., Ltd., London, Ont.
DREDGES
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
DRESSING, belt
Sadler & Haworth, Montreal, Que.
DRILL PRESSES
*Canada Machinery Corporation, Ltd., Galt, Ont.
DRILL SHARPENERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
DRILLS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*Pratt & Whitney Co., Dundas, Ont.
DRILLS, Square or Hexagon
Globe Engineering Co., Limited. Hamilton, Ont.
DRIFT BOLTS OR SPIKES
London Rolling Mill Co., Ltd., London, Ont.
DROP FORGINGS.
*Canadian Billings & Spencer, Ltd., Welland, Ont.
DROP HAMMERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
DRUMS, steel, and containers
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
DRY COLORS
*The Imperial Varnish & Color Co., Ltd., Toronto.
R. C. Jamieson & Co., Ltd., Montreal, Que.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
DUMB WAITERS
Turnbull Elevator Mfg. Co., Toronto, Ont.
DURABLE WIRE ROPE
*The Dominion Wire Rope Co., Ltd., Montreal, Que.
DYNAMITE
Canadian Explosives, Ltd., Montreal, Que.
DYNAMOS
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
DYNAMOS, plating
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
EIDERDOWN
Galt Knitting Co., Ltd., Galt, Ont.
ELECTRIC APPLIANCES
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
ELECTRICAL COMPOUNDS
Standard Paint Co. of Canada, Ltd., Montreal, Que.
ELECTRIC PLATE WARE
Roden Bros., Ltd., Toronto, Ont.
ELECTRODES, carbon
*Canadian National Carbon Co., Ltd., Toronto, Ont.
ELECTROTYPING
Central Press Agency, Ltd., Toronto.
ELECTRICAL SUPPLIES
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
*Jones & Moore Electric Co., Ltd.,
*Northern Electric Co., Ltd., Montreal, Que.
ELECTRO-SILVER PLATED WARE
Standard Silver Co., Toronto, Ont
ELEVATING MACHINERY
*Canadian Link-Belt Co., Toronto.
*Canadian Mathews Gravity Carrier Co., Toronto, Ont.
ELEVATORS
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
Turnbull Elevator Mfg. Co., Toronto, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
ELEVATORS FOR ALL PURPOSES
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
ELEVATOR GATES AND DOORS
Turnbull Elevator Mfg. Co., Ltd., Toronto, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
ELEVATOR GUARDS
*The Geo. B. Meadows, Toronto.
Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
*Canada Wire and Iron Goods Co., Hamilton, Ont.
EMERY GRINDERS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
EMERY WHEELS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
ENAMELS
R. C. Jamieson & Co., Ltd., Montreal, Que.
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
ENAMEL MANUFACTURERS AND DECORATORS
Standard Paint & Varnish Co., Ltd., Windsor, Ont.
ENAMEL AND TIN WARE
*McClary Mfg. Co., London, Ont.
ENGINES
*E. Leonard & Sons, Limited, London, Ont.
*Goldie & McCulloch Co., Ltd., Galt, Ont.
J. & R. Weir, Montreal, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
ENGINES, gas and gasoline
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Hamilton Motor Works, Ltd., Hamilton, Ont.
*Massey-Harris Co., Ltd., Toronto.
ENGINES, gasoline, tractor, plowing and threshing
Sawyer-Massey Co., Ltd., Hamilton, Ont.
ENGINES, hoisting
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
ENGINES, marine, gasoline and kerosene
Bruce, Stewart & Co., Ltd., Charlottetown, P.E.I.
ENGINES, steam plowing and threshing
Sawyer-Massey Co., Ltd., Hamilton, Ont.
ELECTRICAL AND GAS FIXTURES
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
*Tallman, Brass & Metal Co., Hamilton, Ont.
ENGRAVERS, photo
Grip, Ltd., Toronto, Ont.
ENGRAVERS, half-tone
Grip, Ltd., Toronto.
ENGRAVERS AND PRINTERS steel plate
American Bank Note Co., Ottawa, Ont.
ENGRAVERS AND PRINTERS bank note
American Bank Note Co., Ottawa, Ont.
ENGRAVING
*J. L. Jones Engraving Co., Toronto, Ont.
ENGRAVING, copper and steel plate
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
ENSILAGE AND STRAW CUTTERS
J. Fleury's Sons, Aurora, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
EVAPORATED APPLES
Grahams, Ltd., Belleville, Ont.
ENVELOPES
*Barber-Ellis Co., Ltd., Toronto.
Canada Envelope Co., Montreal, Que.
EXCELSIOR PADS
Parmenter & Bulloch Co., Ltd., Gananoque, Ont.
EXPERTS IN PATENT CAUSES
Ridout & Maybee, Toronto, Ont.
EXPLOSIVES, high
Canadian Explosives, Ltd., Montreal, Que.
FACE PLATE JAWS
Ker & Goodwin, Brantford, Ont.
FACTORY SUPPLIES, cheese and creamery
De Laval Dairy Supply Co., Ltd., Montreal, Que.
FANS
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
FARM POWER & LIGHT PLANTS
*Northern Electric Company, Limited, Montreal, Que.
FELTS, pulp and paper makers
Ayers, Ltd., Lachute Mills, P.Q.
*Beveridge Paper Co., Ltd., Montreal, Que.
FENCES AND GATES
*Dennis Wire & Iron Works Co., London, Ont.
*Canada Wire & Iron Goods Co., Hamilton, Ont.
FENCING, wire
*C. H. Johnson & Sons, Ltd., Montreal, Que.
FIBRE PAILS
*The E. B. Eddy Co., Ltd., Hull, Que.
FIBRE, Vulcanized
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
FIBREBRICK, Plastic, jointless
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
FILES
Henry Disston & Sons, Ltd., Toronto, Ont.
*The Nicholson File Co., Port Hope.
FILING CABINETS
*Office Specialty Co., Newmarket, Ont.
FILING EQUIPMENT, wood & steel
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
FILING SYSTEMS
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
Lowe-Martin Co., Ltd., Ottawa, Ont.
FIRE ALARMS
*Northern Electric Co., Ltd., Montreal, Que.
FIRE BRICK
Dominion Fire Brick & Clay Products, Ltd., Moose Jaw, Sask.
FIRE BRICK AND CLAY
Dominion Fire Brick & Clay Products, Ltd., Moose Jaw, Sask.
FIRE DOOR HARDWARE
*Richard Wilcox Canadian Co., Ltd., London, Ont.
FIRE DOORS
*A. B. Ormsby Co., Ltd., Toronto.
*The Pedlar People, Ltd., Oshawa, Ont.
FIRE ENGINES
*Waterous Engine Works Co., Ltd., Brantford, Ont.
FIRE ESCAPES
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
FIRE EXTINGUISHERS
*A. B. Ormsby Co., Ltd., Toronto.
*Booth-Coulter Copper & Brass Co., Ltd., Montreal, Que.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
FIRE FIGHTING APPARATUS
*Waterous Engine Works Co., Ltd., Brantford, Ont.
FIRE HOSE
*Canadian Consolidated Rubber Co. of Canada, Ltd., Montreal, Que.
*Gutta Percha & Rubber, Ltd., Toronto, Ont.
FIRE PREVENTION MATERIAL
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*Eureka Mineral Wool & Asbestos Co., Toronto.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
FIRE PROOF WINDOWS AND DOORS
*A. B. Ormsby Co., Ltd., Toronto.
*Pedlar People, Ltd., Oshawa, Ont.
FIRE PROTECTION SYSTEMS
*Canadian Des Moines Steel Co., Limited, Chatham.
FIRE SPRINKLER SYSTEMS
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
*Purdy Mansell Co., Toronto, Ont.
FIRE AND WATER DEPARTMENT
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
The Garth Co., Montreal, Que.
FISH, Atlantic Sea-Foods
Maritime Fish Corporation, Ltd., Montreal, Que.

*For Display Advertisement see Index, Page 45

FITTINGS FOR SOIL PIPE
Anthes Foundry, Ltd., Toronto.
FITTINGS, steam
Warden King Ltd., Montreal, Que.
FLOORING, hardwood
Seaman Kent Co., Ltd., Meaford, Ont.
FORGES
*Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
FORGINGS
Canada Forge Co., Ltd., Welland, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
FORGINGS, drop
*Canadian Billings & Spencer, Ltd., Welland, Ont.
*Dominion Forge & Stamping Co., Walkerville, Ont.
FOUNDRY EQUIPMENT
*Northern Crane Works, Ltd., Walkerville, Ont.
FOUNTAIN FRUITS AND JUICES
J. J. McLaughlin, Ltd., Toronto.
FRICTION CLUTCH PULLEYS
*Dodge Mfg. Co., Ltd., Toronto.
FROGS AND CROSSINGS, manganese
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
FUEL
Standard Fuel Co., Toronto, Ont.
FUR GARMENTS, men's and women's
Holt, Renfrew, Ltd., Quebec.
FUR GOODS
John W. Peck & Co., Ltd., Montreal, Que.
FURNACES
*McClary Mfg. Co., London, Ont.
FURNITURE, hall
The George McLagan Furniture Co., Ltd., Stratford, Ont.
FURNITURE, office
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.
FURNITURE, reed and rattan
Imperial Rattan Co., Ltd., Stratford, Ont.
FUSES
*Economy Fuse & Mfg. Co., Montreal, Que.
GALVANIZED IRON
*A. C. Leslie & Co., Montreal.
GALVANIZED SHEETS
*Dominion Sheet Metal Co., Hamilton, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
GALVANIZERS
Acme Stamping & Tool Works, Ltd., Hamilton, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*The Pedlar People, Ltd., Oshawa.
GASOLINE ENGINES
*Ontario Wind & Pump Co., Ltd., Toronto, Ont.
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
GASOLINE FIRE ENGINES
*Waterous Engine Works Co., Ltd., Brantford, Ont.
GASOLINE STORAGE SYSTEMS, special underground
*S. F. Bowser & Co., Toronto.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
GASOLINE
*The Imperial Oil Co., Ltd., Toronto, Ont.
GAUGES
*Brown Engineering Corporation, Toronto, Ont.
GEARS, cut
*Brown Engineering Corporation Toronto, Ont.
*Hamilton Gear and Machine, Toronto.
GELATINE
Canada Gelatine Co., Ltd., Brantford, Ont.
GENERATORS
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
GILDING METAL
*Dominion Copper Products Co., Ltd., Montreal, Que.
GLASSWARE
Dominion Glass Co., Ltd., Montreal, Que.
GLASSWARE, cut
Roden Bros., Ltd., Toronto.
GLASS FOR BUILDINGS
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLASS BENDERS
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLASS, mirror
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLOVES AND MITTS
*A. R. Clarke & Co., Ltd., Toronto.
Craig, Cowan Co., Ltd., Toronto.
GLUE
Canada Glue Co., Ltd., Brantford, Ont.
GOLD-FILLED WIRE AND PLATE
Canadian Seamless Wire Co., Toronto, Ont.
GOLD AND SILVER REFINERS
Canadian Seamless Wire Co., Toronto, Ont.
GRAIN CRUSHERS, rapid, easy
J. Fleury's Sons, Aurora, Ont.
GRAPE JUICE
J. J. McLaughlin, Ltd., Toronto.
The Welch Co., Ltd., St. Catharines, Ont.
GRAPHITE, lubricating
Black Donald Graphite Company, Limited, Calabogie, Ont.
GRATES
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
GRATES, revolving, anticlinker
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
GRAVITY CARRIERS
*Canadian Mathews Gravity Carrier Co., Toronto, Ont.
GRILLES, metal
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
GRINDING AND POLISHING MACHINERY
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
GRINDING WHEELS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
*The Dominion Abrasive Wheel Co., Ltd., New Toronto, Ont.
GRINDSTONES
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
GUNN SECTIONAL BOOKCASES
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
GUY ANCHORS
B. J. Coghlin Co., Ltd., Montreal.
GYPSUM PRODUCTS
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
HACK SAW BLADES AND FRAMES
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HACK SAW MACHINES
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HALL FURNITURE
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
HAMS
F. W. Fearman Co., Ltd., Hamilton, Ont.
HANDLES (axe, pick, sledge hammers, etc.)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.
HANDLES, wood
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
HAND SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HANGERS
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
HARDWARE
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.
HARNESS
Lamontagne, Ltd., Montreal, Que.
HATS, ladies' felt and straw
Toronto Hat Mfg. Co., Toronto.
HAULAGE, wire rope
*The Dominion Wire Rope Co., Ltd., Montreal, Que.
HEADING SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HEATERS
*Waterous Engine Works Co., Ltd., Brantford, Ont.
HEATERS, feed water
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
HEATING APPLIANCES
*C. A. Dunham Co., Ltd., Toronto.
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
HEATING SYSTEMS
*C. A. Dunham Co., Ltd., Toronto.
HEMLOCK, union and oak sole
Breithaupt Leather Co., Ltd., Kitchener, Ont.
HESSIANS
The Canadian Bag Co., Ltd., Montreal, Que.
HINGES
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
HOISTS, electric and pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*Northern Crane Works, Ltd., Walkerville, Ont.
HOSE, fire and rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha & Rubber, Ltd., Toronto, Ont.
HOUSES, factory made
Wm. H. White, Ville St. Pierre, Montreal, Que.
HYDRAULIC TURBINES
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
ICE CREEPERS
Parmenter & Bulloch Co., Ltd., Gananoque, Ont.
ICE-MAKING MACHINERY
The Linde Canadian Refrigeration Co., Ltd., Montreal, Que.
INGOT METALS
*Brown's Copper & Brass Rolling Mills, Ltd., New Toronto, Ont.
INSERTED TOOTH SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
INSULATING COMPOUNDS
*The Imperial Varnish & Color Co., Ltd., Toronto.
INSULATING PAPERS
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
INTERLOCKING RUBBER TILING
*Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd., Toronto, Ont.
IRON
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
IRON AND STEEL BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
IRON STAIRWAYS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
IRONWORK, architectural
*Canada Wire & Iron Goods Co., Hamilton, Ont.
IRONWORK, ornamental
*Canada Wire & Iron Goods Co., Hamilton, Ont.
JACKS
Globe Engineering Co., Ltd., Hamilton, Ont.
JAM, canned goods, etc.
E. D. Smith & Son, Ltd.
JAPANS, enamels, etc.
A. Muirhead Co., Ltd., Toronto.
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
JIGS AND TOOLS
*Brown Engineering Corporation, Toronto, Ont.
JOINTERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
JELLY POWDER
S. H. Ewing & Sons, Montreal.
JEWELRY, enamelled souvenir
*Caron Bros., Montreal, Que.
JEWELRY, gold-filled
*Caron Bros., Montreal, Que.
JOIST HANGERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
JUNCTION BOXES, cable
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
KINDLING
Standard Fuel Co., Toronto, Ont.
KNIFE GRINDERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
KNITTED GOODS
*Penman's, Ltd., Paris, Ont.
KNIVES
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.
Simonds Canada Saw Co., Ltd., Montreal, Que.
KNIVES, pulp and paper
Henry Disston & Sons, Toronto.
The Peter Hay Knife Co., Ltd., Galt, Ont.
KODAKS AND PHOTOGRAPHIC SUPPLIES
Canadian Kodak Co., Ltd., Toronto.
LABELS
Lawson & Jones, Ltd., London, Ont.
LABELS, lithographed
Harris Lithographing Co., Ltd., Toronto, Ont.
LABORATORY SUPPLIES
Canadian Laboratory Supplies, Ltd., Toronto.
LACE LEATHER
F. C. McCordick, St. Catharines, Ont.
*The D. K. McLaren Belting Co., Ltd., Montreal, Que.
*The J. C. McLaren Belting Co., Ltd., Montreal, Que.
LADDERS
Stratford Mfg. Co., Ltd., Stratford, Ont.
LADLES, foundry
*Northern Crane Works, Ltd., Walkerville, Ont.
LARD
F. W. Fearman Co., Ltd., Hamilton, Ont.
LATH
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
LATHE CHUCKS
Ker & Goodwin, Brantford, Ont.
LATHE-DOGS
Canadian Billings & Spence, Ltd. Welland, Ont.
LATHES
*Canada Machinery Corporation, Ltd., Galt, Ont.
LAUNCHES
Peterboro Canoe Co., Ltd., Peterboro, Ont.
LAWN MOWERS
Taylor-Forbes Co., Ltd., Guelph, Ont.
LAWN SWINGS
Stratford Mfg. Co., Ltd., Stratford, Ont.
LAVATORIES, enameled
Amherst Foundry Co., Ltd., Amherst, N.S.
LAUNDRY SINKS
Amherst Foundry Co., Ltd., Amherst, N.S.
LEAD
*Consolidated Mining & Smelting Co. of Canada, Ltd., Montreal.
LEAD GRINDERS
Benjamin Moore & Co., Ltd., Toronto, Ont.
LEAD PIPE
*Hoyt Metal Co., Toronto, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
*The Canada Metal Co., Toronto.
LEAD SHEET
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
LEATHER
The Robson Leather Co., Ltd., Oshawa, Ont.
LEATHER, bookbinders'
Clarke & Clarke, Ltd., Toronto.
LEATHER, fancy
Clarke & Clarke, Ltd., Toronto.
LEATHER GOODS
Lamontagne, Ltd., Montreal, Que.

*For Display Advertisement see Index, Page 45

LEATHER, hemlock, union and oak sole
The Breithaupt Leather Co., Ltd., Kitchener, Ont.
LEATHER, patent colt and side leather
*A. R. Clarke & Co., Ltd., Toronto.
LEATHER, sheep skin, etc.
Clarke & Clarke, Ltd., Toronto.
LEATHER, upholstering
Clarke & Clarke, Ltd., Toronto.
LEATHER, upper
A. Davis & Son., Ltd., Kingston, Ont.
King Brothers Co., Ltd., Whitby, Ont.
LINK BELT, Ewart, and sawmill rivetted
*Canadian Link-Belt Co., Toronto.
LINK BELTING
*The Dodge Mfg. Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
LINOLEUM
Dominion Oil Cloth Co., Ltd., Montreal, Que.
LITHOGRAPHERS
American Bank Note Co., Ottawa, Ont.
Harris Lithographing Co., Ltd., Toronto, Ont.
LOCKERS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*Geo. B. Meadows, Wire, Iron and Brass Works Co., Toronto. Ont.
LOCOMOTIVES, industrial
*Montreal Locomotive Works, Ltd., Montreal, Que.
LOCOMOTIVE & MARINE BRASS WORKS
The James Morrison Brass Mfg. Co., Ltd., Toronto.
LOOSE LEAF SYSTEMS
Copeland-Chatterson Co., Ltd., Brampton, Ont.
Lowe-Martin Co., Ottawa, Ont.
LUGS, for silos and water tanks
*Ontario Wind Engine & Pump Co., Ltd., Toronto.
LUMBER
*Brown Corporation, La Tuque, Que.
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
G. & J. Esplen, Montreal, Que.
LUMBER, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
LUMBER, spruce and pine, cedar railway ties and shingles
*Bathurst Lumber Co., Ltd., Bathurst, N.B.
LUMBER, red pine and spruce
Gillies Bros., Ltd., Braeside, Ont.
LUMBER, White pine
Gillies Bros., Ltd., Braeside, Ont.
LUMBERING BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
MACHINE KNIVES
*Galt Knife Co., Ltd.
*E. C. Atkins & Co., Inc., Hamilton, Ont.
Henry Disston & Sons, Toronto.
MACHINE TOOLS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINE WORK, special and repairs
*Canadian Rumely Co., Ltd., Toronto, Ont.
MACHINERY AND UTENSILS FOR BAKERS
Fletcher Mfg. Co., Ltd., Toronto.
MACHINERY AND UTENSILS FOR CANDY
Fletcher Mfg. Co., Ltd., Toronto.
MACHINERY AND UTENSILS FOR ICE CREAM
Fletcher Mfg. Co., Ltd., Toronto.
MACHINERY, conveying
*Canadian Link-Belt Co., Toronto.
*Canadian Mathews Gravity Carrier Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
MACHINERY, flour mill
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

MACHINERY, grinding
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
Canadian Mead Morrison Co., Ltd., Montreal, Que.
J. & R. Weir, Montreal, Que.
*Northern Crane Works, Ltd., Walkerville, Ont.
MACHINERY, ice cream
J. J. McLaughlin, Ltd., Toronto.
MACHINERY, iron working
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINERY, pulp mill
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
MACHINERY, punching and shearing
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINERY, railroad and car-shop
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINERY, roadmaking
Sawyer-Massey Co., Ltd., Hamilton, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
MACHINERY, sawmill
The E. Long Mfg. Co., Ltd., Orillia, Ont.
P. Payette & Co., Pentanguishene, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Yates, P. B., Machine Co., Ltd., Hamilton, Ont.
MACHINERY, sheet metal working
Brown, Boggs Co., Ltd., Hamilton, Ont.
*Canada Machinery Corporation, Ltd., Galt, Ont.
MACHINERY, transmission
*Dodge Mfg. Co., Ltd., Toronto.
*Goldie & McCulloch Co., Ltd., Galt, Ont.
MACHINERY, woodworking
*Canada Machinery Corporation, Ltd., Galt, Ont.
*Yates, P. B., Machine Co., Ltd., Hamilton, Ont.
Preston Woodworking Machinery Co., Ltd., Preston, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
MACHINE WRENCHES
*Canadian Billings & Spencer, Ltd., Welland, Ont.
MACHINES, painting
Spramotor Co., London, Ont.
MAGNESITE
*Canadian Carbonate Co., Montreal, Que.
MALLEABLE IRON CASTINGS
*Galt Malleable Iron Co., Ltd., Galt, Ont.
MAPLE PRODUCTS
*Maples, Ltd., Toronto, Ont.
MARTINGALE RINGS AND SLIDE LOOPS
The Arlington Co. of Canada, Ltd., Toronto, Ont.
MATCHERS
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
MATCHES
*The E. B. Eddy Co., Ltd., Hull, Que.
MECHANICAL STOKERS
*The Jones Underfeed Stoker Co., Ltd., Toronto.
METAL, babbitt
*Canada Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
Alonzo W. Spooner, Ltd., Port Hope, Ont.
METAL CEILINGS
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
METAL LATH
*The Pedlar People, Ltd., Oshawa, Ont.

METAL PACKING
*Garlock Packing Co., Hamilton, Ont.
METAL PROTECTIVE PAINTS
Sturgeons Limited, Toronto.
METAL, spinning and stamping
*The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
METAL SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
METAL SHINGLES
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
METAL STAMPINGS
Canadian Cartridge Co., Ltd., Hamilton, Ont.
METERS, water
Canadian Cartridge Co., Ltd., Hamilton, Ont.
MILK DEALERS' MACHINERY AND SUPPLIES
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
MILLBOARD, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto.
MILLING CUTTERS
*Pratt & Whitney Co. of Canada, Dundas, Ont.
MITTS AND GLOVES, Indian, tan, red deerskins
Holt, Renfrew, Ltd., Quebec, Que.
*A. R. Clarke & Co., Ltd., Toronto.
MIXERS, chocolate, dough and paint
Fletcher Mfg. Co., Ltd., Toronto.
MOCCASINS AND SLIPPERS, Indian tanned leathers
Holt, Renfrew, Ltd., Quebec, Que.
MORTISERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
MOTOR CARS
*Ford Co. of Canada, Ford, Ont.
MOTORS, electric (alternating current)
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*T. & H. Electric Co., Hamilton, Ont.
MOTORS, electric (direct current)
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*T. & H. Electric Co., Hamilton.
MOTORS, electric (repairing)
*T. & H. Electric Co., Hamilton.
MOULDERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
NAILS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
NAILS, copper
Parmenter & Bullock Co., Ltd., Gananoque, Ont.
NAILS, wire
Parmenter & Bullock Co., Ltd., Gananoque, Ont.
NAPHTHA
*The Imperial Oil Co., Ltd., Toronto, Ont.
NICKEL OXIDE
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
Coniagas Reduction Co., Ltd., St. Catharines, Ont.
NICKEL METAL
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
NUTS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
OAKUM, plumbers, Canadian Navy
Factory Waste & Metal Co., Montreal, Que.
OAT CRUSHERS AND FLAKERS
J. Fleury's Sons, Aurora, Ont.
OFFICE DESKS
*Goderich Organ Co., Goderich, Ont.

OFFICE EQUIPMENT
Lowe-Martin Co., Ltd., Ottawa, Ont.
*Office Specialty Co., Newmarket, Ont.
OFFICE FURNITURE
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
OILS
*A. Ramsay & Son Co., Montreal, Que.
OIL FILTRATION AND CIRCULATING SYSTEMS
*S. F. Bowser & Co., Toronto, Ont.
OIL STORAGE SYSTEMS, self-measuring
*S. F. Bowser & Co., Toronto, Ont.
OIL COMPANIES
*Canadian Oil Cos., Toronto.
Commercial Oil Co., Ltd., Hamilton, Ont.
*Imperial Oil Co., Toronto.
OILS (petroleum products)
*British American Oil Co., Ltd., Toronto, Ont.
*The Imperial Oil Co., Toronto.
OILS, road
*The Barrett Co., Ltd., Toronto and Montreal.
OILCLOTHS, floor and table
Dominion Oil Cloth Co., Ltd., Montreal, Que.
ORGANS
Casavant Freres, Limitee, St. Hyacinthe, Que.
*Goderich Organ Co., Goderich, Ont.
ORGANS, pipe
Casavant Freres, Limitee, St. Hyacinthe, Que.
ORGANS, parlor
*Goderich Organ Co., Goderich, Ont.
ORNAMENTAL IRON WORK
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*The Geo. B. Meadows, Toronto Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
OVERALLS
Peerless Overall Co., Rock Island, Que.
Walker Pant & Shirt Co., Walkerville and Chatham, Ont.
OVERCOATINGS
Rosamond Woollen Co., Almonte, Ont.
OVERHEAD RUNWAYS
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
OXY-ACETYLENE WELDING
*L'Air Liquide Society, Montreal, Que.
*The Prest-O-Lite Co., Inc., Toronto.
OXYGEN
*L'Air Liquide Society, Montreal, Que.
PACKING BOXES
Barchard & Co., Ltd., Toronto.
PACKING, engine
*Garlock Packing Co., Hamilton, Ont.
PACKING, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha & Rubber Mfg. Co. of Toronto, Ltd.
*Jenkins Bros., Ltd., Montreal, Que.
PAILS AND TUBS, wooden
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
PAINTERS' SUPPLIES
A. Muirhead Co., Ltd., Toronto.
PAINTS
R. C. Jamieson & Co., Ltd., Montreal, Que.
PAINTS AND VARNISHES
A. Muirhead Co., Ltd., Toronto.
Benjamin Moore & Co., Ltd., Toronto, Ont.
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
The Staneland Co., Ltd., Victoria, B.C.
*A Ramsay & Sons Co., Montreal, Que.
Standard Paint Co. of Canada, Ltd., Montreal, Que.

* For Display Advertisement see Index, Page 45

PAINTS, preservative
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
*The Barrett Co., Ltd., Toronto and Montreal.

PAPER, bags, all kinds
*Beveridge Paper Co., Ltd., Montreal.

PAPER BOXES
King Paper Box Co., Ltd., Montreal, Que.

PAPER, coated, book and label
*Provincial Paper Mills, Ltd., Georgetown, Ont.

PAPER, coated box board
*Provincial Paper Mills, Ltd., Georgetown, Ont.

PAPER, coated cover
*Provincial Paper Mills, Ltd., Georgetown, Ont.

PAPER, envelope
*Provincial Paper Mills, Ltd., Georgetown, Ont.
The Toronto Paper Mfg. Co., Cornwall, Ont.

PAPER, enamelled blotting
*Provincial Paper Mills, Ltd., Georgetown, Ont.

PAPER, label
*Provincial Paper Mills, Ltd., Georgetown, Ont.

PAPER, ledger
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
The Toronto Paper Mfg. Co., Cornwall, Ont.

PAPER, super-book
The Toronto Paper Mfg. Co., Cornwall, Ont.

PAPER, writing
The Toronto Paper Mfg. Co., Cornwall, Ont.
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.

PAPERS, bond
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.

PAPERS, building
*Bathurst Lumber Co., Ltd., Bathurst, N.B.
*The Riordon Pulp & Paper Co., Montreal, Que.
Standard Paint Co. of Canada, Ltd., Montreal, Que.

PARCHMENT PAPER, for wet packing
*Beveridge Paper Co., Ltd., Montreal.

PARK SEATS
Stratford Mfg. Co., Ltd., Stratford, Ont.

PARLOR SUNDRIES
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.

PATENTS
Fetherstonhaugh & Co., Toronto.
*Ridout & Maybee, Toronto, Ont.
*Harold C. Shipman & Co., Ottawa.

PATENT LITIGATION
*Ridout & Maybee, Toronto, Ont.
*Harold C. Shipman & Co., Ottawa, Ont.

PAY ROLL AUDITS
*International Business Machines, Ltd., Toronto, Ont.

PERFORATED METALS
*Canada Wire & Iron Goods Co., Hamilton, Ont.

PERFORATED MUSIC ROLLS
The Otto Higel Co., Ltd., Toronto.

PERFUMES AND TOILET PREPARATIONS
Sovereign Perfumes, Ltd., Toronto.

PETROLEUM PRODUCTS
*The Imperial Oil Co., Ltd., Toronto, Ont.

PHOTO MAILERS
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.

PIANO ACTIONS
The Otto Higel Co., Ltd., Toronto.

PIANO KEYS
The Otto Higel Co., Ltd., Toronto.

PIANO, player actions
The Otto Higel Co., Ltd., Toronto.

PIANO STOOLS AND BENCHES
*Goderich Organ Co., Goderich, Ont.

PIG IRON
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*M. A. Hanna & Co., Toronto.

PINS, society, emblems and badges
*Caron Bros., Montreal, Que.

PIPE, cast iron, for water and gas
National Iron Works, Ltd., Toronto, Ont.

PIPE COUPLINGS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

PIPE COVERINGS
*Eureka Mineral Wood & Asbestos Co., Toronto, Ont.

PIPES, culvert
*The Pedlar People, Ltd., Oshawa, Ont.

PIPE AND NIPPLES, black and galvanized
*Canadian Tube & Iron Co., Ltd., Montreal, Que.

PIPE, sewer
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.

PIPE, soil and fittings
Anthes Foundry, Ltd., Toronto and Winnipeg.
Warden King Ltd., Montreal, Que.

PISTON RODS
*The Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*Union Drawn Steel Co., Ltd., Hamilton, Ont.

PLANERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

PLANING MILLS
G. & J. Esplen, Montreal, Que.

PLASTERING TROWELS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

PLOWS
J. Fleury's Sons, Aurora, Ont.

PLUMBERS' SUPPLIES
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.

PNEUMATIC DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

POLE LINE MATERIAL (wooden insulator top pins, side blocks, pole steps, cross arms)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.

POLES, flag
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.

PORK PACKERS AND CHEESE EXPORTERS
The Ingersoll Packing Co., Ltd., Ingersoll, Ont.

POWDER, blasting
Canadian Explosives, Ltd., Montreal, Que.

POWER PRESSES
*Hydraulic Machinery Co., Ltd., Montreal, Que.

PRESSES, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.

PRESSES, sheet metal stamping
Brown, Boggs Co., Ltd., Hamilton, Ont.
*Canada Machinery Corporation, Ltd., Galt, Ont.

PRESSES, veneer
*Canada Machinery Corporation, Ltd., Galt, Ont.

PRINTING AND LITHOGRAPHING
Lawson & Jones, Ltd., London, Ont.

PULLEYS
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

PULLEYS, wood split
*Bernard Industrial Co., Fortierville, P.Q.

PULP, bleached sulphite
*Riordan Sales Co., Ltd., Montreal, Que.

PULP, unbleached sulphite
*Riordan Sales Co., Ltd., Montreal.

PULP, sulphate and sulphite
*Bathurst Lumber Co., Ltd., Bathurst, N.B.

PULP AND PAPER MILL MACHINERY
*The Hydraulic Machinery Co., Limited, Montreal.

PUMPS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*E. Leonard & Sons, Ltd., London, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
Spramotor Co., London, Ont.
*The Electric Steel & Metals Co., Ltd., Welland, Ont.

PUMPS, boiler feed
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

PUMPS, centrifugal
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Dominion Forge & Stamping Co., Ltd., Walkerville, Ont.

PUMPS, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.

PUMPS, turbine and reciprocating
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

PUNCHES
*Pratt & Whitney Co., Dundas, Ont.

RADIATORS
Taylor-Forbes Co., Ltd., Guelph, Ont.
Warden King, Ltd., Montreal, Que.

RAILINGS, brass and iron
*Dennis Wire & Iron Works Co., London, Ont.

RAILWAY SUPPLIES
*Canadian Steel Foundries, Ltd., Montreal, Que.
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
B. J. Coghlin Co., Ltd., Montreal, Que.

READY-TO-WEAR GARMENTS, ladies'
H. C. Boulter Co., Ltd., Toronto.

REAMERS
*Pratt & Whitney Co., Dundas, Ont.
*Butterfield & Co., Rock Island, P.Q.

REFRIGERATORS
Sanderson-Harold Co., Ltd., Paris, Ont.

REFRIGERATING MACHINERY
The Linde Canadian Refrigeration Co., Ltd., Montreal, Que.

REFRIGERATORS, store, homes and institutions
Ham & Nott Co., Ltd., Brantford, Ont.
John Hillock & Co., Ltd., Toronto.

REINFORCEMENT BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

REINFORCEMENT FOR CONCRETE
*Canada Wire & Iron Goods Co., Hamilton, Ont.

REINFORCEMENT FOR CONCRETE ROOFING, metal
*The Pedlar People, Ltd., Oshawa, Ont.

REVOLVING DOORS
*A. B. Ormsby Co., Ltd., Toronto.

RINGS, gold
*Caron Bros., Montreal, Que.

RIVETS
*Canadian Tube & Iron Co., Ltd., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

RIVETS, bifurcated and tubular
Parmenter & Bullock Co., Ltd., Gananoque, Ont.

RIVETS AND BURRS, iron, copper and brass
Parmenter & Bullock Co., Ltd., Gananoque, Ont.

ROCK DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

ROLLING STEEL DOORS
*A. B. Ormsby Co., Ltd., Toronto.

ROOFING, metal
*A. B. Ormsby Co., Ltd., Toronto.

ROOFINGS, plastic, liquid, rubber
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

ROOFING, ready to lay
Standard Paint Co. of Canada, Ltd., Montreal, Que.
*The Barrett Co., Ltd., Toronto and Montreal.

ROOF TRUSSES
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
*Dominion Bridge Co., Ltd., Montreal, Que.

ROPE
*Doon Twines, Ltd., Doon, Ont.
*Shurly & Derrett, Ltd., Toronto.

ROPE, cotton
Hamilton Cotton Co., Hamilton, Ont.

RUBBER FOOTWEAR
*Gutta Percha & Rubber Ltd., Toronto, Ont.
The Miner Rubber Co., Ltd., Grandy, Que.

RUBBER GOODS
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha & Rubber Limited, Toronto.

RUBBER MACHINERY
*The Hydraulic Machinery Co., Limited, Montreal.

RUBBER MILL MACHINERY
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.

RUBBER PACKING
*Garlock Packing Co., Hamilton, Ont.

RULES
The Lufkin Rule Co. of Canada, Ltd., Windsor, Ont.

SADDLERY HARDWARE
*Dominion Forge & Stamping Co., Walkerville, Ont.

SAFES
*Goldie & McCulloch Co., Ltd., Galt, Ont.

SAMPLE CASES
*The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.
J. Eveleigh & Co., Ltd., Montreal, Que.

SAND RAMMERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

SASH CORD, cotton
Hamilton Cotton Co., Hamilton, Ont.

SALT
*Canadian Salt Co., Ltd., Windsor, Ont.
Dominion Salt Co., Ltd., Sarnia, Ont.

SANITARY PAPER TOWELS
*E. B. Eddy Co., Ltd., Hull, Que.

SAVE-ALLS
*The Hydraulic Machinery Co., Limited, Montreal.

SAW SHARPENING MACHINERY
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

SAWS
*E. C. Atkins & Co., Ltd., Hamilton, Ont.
Henry Disston & Sons, Ltd., Toronto, Ont.
Shurly & Deitrich, Galt, Ont.

SAWS, cross-cut and band
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
Shurly & Deitrich, Galt, Ont.

SAWS, circular mill
Shurly & Deitrich, Galt, Ont.

SAWS, of all kinds
Simonds Canada Saw Co., Ltd., Montreal, Que.

SAWS, rip
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
Shurly & Deitrich, Galt, Ont.

SAWMILLS
G. & J. Esplen, Montreal, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

SCALES
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.

SCREENS
*Canada Wire & Iron Goods Co., Hamilton, Ont.

*For Display Advertisement see Index. Page 45

SCREEN DOORS AND WINDOWS
Sanderson-Harold Co., Ltd., Paris, Ont.
Ham & Nott Co., Ltd., Brantford, Ont.
SCREWS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
SCREW PLATES
*Butterfield & Co., Rock Island, P.Q.
SECURITIES, engraved
American Bank Note Co., Ottawa, Ont.
SERGES
Rosamond Woollen Co., Almonte, Ont.
SEWAGE SCREENS
*The Hydraulic Machinery Co., Limited, Montreal.
SHAFTING
Canada Forge Co., Ltd., Welland, Ont.
*Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*Union Drawn Steel Co., Ltd., Hamilton, Ont.
*Dodge Mfg. Co., Ltd., Toronto.
SHANTY BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
SHAPERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
SHEAR BLADES, iron
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.
SHEATHING
*The Barrett Co., Ltd., Toronto and Montreal.
SHEATHING, asbestos corrugated
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
SHEET METAL STAMPINGS
Acme Stamping & Tool Works, Ltd., Hamilton, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
SHEETS, galvanized
*Dominion Sheet Metal Co., Ltd., Hamilton, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.
SHINGLES
*Bathurst Lumber Co., Ltd., Bathurst, N.B.
SHINGLE SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
SHINGLE STAINS
Sturgeons, Limited, Toronto.
SHIP BUILDERS
J. & R. Weir, Montreal, Que.
SHIRTS
John W. Peck & Co., Ltd., Montreal, Que.
SHIRTS, workmen's
*A. R. Clarke & Co., Ltd., Toronto.
SHOE PEGWOOD
O. Chalifour, Quebec, Que.
SHOE LININGS
Galt Knitting Co., Ltd., Galt, Ont.
SHOOKS
Barchard & Co., Ltd., Montreal.
SIGNAL CELLS
*Canadian National Carbon Co., Ltd., Toronto.
SIGNS, Advertising.
Cross Press & Sign Co., Ltd., Woodstock, Ont.
SILENT CHAIN DRIVES
*Canadian Link-Belt Co., Toronto.
SILVER BULLION
Coniagas Reduction Co., Ltd., St. Catharines, Ont.
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
SILVERSMITH
Standard Silver Co., Toronto, Ont.
SILVERWARE, sterling
Roden Bros., Ltd., Toronto, Ont.
SINKS, enamelled
Amherst Foundry Co., Ltd., Amherst, N.S.
SKIFFS
Peterboro Canoe Co., Ltd., Peterboro, Ont.

SKYLIGHTS
*A. B. Ormsby Co., Ltd., Toronto.
*The Pedlar People, Ltd., Oshawa, Ont.
SLOTTERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
SMOKE CONSUMERS
*The Jones Underfeed Stoker Co., Ltd., Toronto, Ont.
SMOKE-STACKS
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*E. Leonard & Sons, Limited, London, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
SOAPS
J. Barsalou & Co., Ltd., Montreal.
SOAP (soft, oil)
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
SODA WATER FOUNTAINS
J. J. McLaughlin, Ltd., Toronto.
SODA WATER FOUNTAINS AND ACCESSORIES
Fletcher Mfg. Co., Ltd., Toronto.
SOIL PIPE
Anthes Foundry, Ltd., Toronto.
SOLDER
Alonzo W. Spooner, Ltd., Port Hope, Ont.
*Canada Metal Co., Toronto, Ont.
*Hoyt Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
SOLDER, silver
Geo. H. Lees & Co., Hamilton, Ont.
SOLDER, wire and bar
American Can Co., Montreal, and Hamilton.
SOLDERING IRONS AND COPPERS
Brown, Boggs Co., Ltd., Hamilton.
SNOWSHOES
Holt, Renfrew, Ltd., Quebec, Que.
SPECIAL MACHINERY
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
Globe Engineering Co., Ltd., Hamilton, Ont.
SPELTER
*Consolidated Mining & Smelting Co. of Canada, Ltd., Montreal.
SPINNING AND STAMPING
*Tallman Brass & Metal, Ltd., Hamilton, Ont.
SPIRAL CONVEYORS
*Canadian Mathews Gravity Carrier Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
SPLIT PEAS
H. Murton, Ltd., Guelph, Ont.
SPOOLS
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
SPORTING MEDALS AND TROPHIES
Roden Bros., Ltd., Toronto, Ont.
SPRAYERS
Spramotor Co., London, Ont.
SPRING COTTERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
SPRINGS
*Canadian Steel Foundries, Ltd., Montreal, Que.
B. J. Coghlin Co., Ltd., Montreal.
Guelph Spring & Axle Co., Ltd., Guelph, Ont.
SPRINGS, carriage and automobile
Guelph Spring & Axle Co., Ltd.,
SPRING SHACKLE BOLTS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
SPRINKLER SYSTEMS
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
*Purdy, Mansell, Ltd., Toronto.
SPROCKET WHEELS
*Canadian Link Belt Co., Ltd., Toronto, Ont.
STAINS
R. C. Jamieson & Co., Ltd., Montreal, Que.
STAINS, creosote shingle
A. Muirhead Co., Ltd., Toronto.
STAMPINGS, heavy steel
Canadian Cartridge Co., Ltd., Hamilton, Ont.
STAMPS, steel, brass and rubber
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

STATIONERY, office
Harris Lithographing Co., Toronto.
STEAM PIPE AND BOILER COVERINGS, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto.
STEAM SHOVELS
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
STEAM SPECIALTIES
*C. A. Dunham Co., Ltd., Toronto.
STEAM TRAPS
*C. A. Dunham Co., Ltd., Toronto.
STEEL
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
*Burlington Steel Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
STEEL BILLETS AND BLOOMS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STEEL BUILDINGS
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
*Dominion Bridge Co., Ltd., Montreal, Que.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*Maritime Bridge Co., Ltd., New Glasgow, N.S.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, P.Q.
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
STEEL CASTINGS
Beauchemin & Fils, Ltd., Sorel, Que.
*Canadian Steel Foundries, Ltd., Montreal, Que.
*Dominion Foundries and Steel Co., Ltd., Hamilton, Ont.
*Electric Steel & Metals Co., Ltd., Welland, Ont.
STEEL DOORS, rolling
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
STEEL FILING EQUIPMENT
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
STEEL PLATE WORK
*Canadian Ingersoll Rand Co., Ltd., Sherbrooke, Que.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, P.Q.
*Toronto Iron Works, Ltd., Toronto.
STEEL RODS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STEEL SASH
*Dennis Wire & Iron Works Co., London, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
STEEL SHELVING
*Dennis Wire & Iron Works Co., London, Ont.
STEEL WIRE RODS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STELLITE
*Deloro Smelting & Refining Co., Ltd., Deloro and Toronto.
STENCILS, brass
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
STEREO TISSUE AND BLOTTINGS
*Beveridge Paper Co., Ltd., Montreal.
STEREOTYPING
Central Press Agency, Toronto.
STOKERS
*The Jones Underfeed Stoker Co., Ltd., Toronto, Ont.
STOOLS, steel factory
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
STORAGE BATTERIES
*Northern Electric Company, Limited, Montreal, Que.
STORE FITTINGS
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.
STOVES
Smith Foundry Co., Ltd., Fredericton, N.B.
STOVE POLISH GRAPHITE
Black Donald Graphite Company, Limited, Calabogie, Ont.

STOVES AND RANGES
*McClary Mfg. Co., London, Ont.
STRAWS, paper drinking
Fletcher Mfg. Co., Ltd., Toronto.
STRUCTURAL STEEL WORK
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*Dominion Bridge Co., Montreal.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
SUIT CASES
J. Eveleigh & Co., Ltd., Montreal.
*The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.
SULPHUR BURNERS
*The Hydraulic Machinery Co., Limited, Montreal.
SUPPLY DEALERS
*The Foundation Co., Ltd., Montreal, Que.
SURFACERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
SWITCHES, railway
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
SWITCHES AND FROGS
*Canadian Steel Foundries, Ltd., Montreal, Que.
SWITCH STANDS
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
TABLE COVERS, chenille
Hamilton Cotton Co., Hamilton, Ont.
TANKS
*Canadian Des Moines Steel Co., Limited, Chatham.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*Toronto Iron Works, Ltd., Toronto.
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*E. Leonard & Sons, Ltd., London, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Maritime Bridge Co., Ltd., New Glasgow, N.S.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
Wm. H. White, Ville St. Pierre, Montreal, Que.
TANKS, elevated steel
*Canadian Des Moines Steel Co., Limited, Chatham.
TANKS, steel storage
*Canadian Ingersoll Rand Co., Ltd., Sherbrooke, Que.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
TANNERS' OILS & GREASES
Salem Oil & Grease Co. of Canada, Limited, Farnham, Que.
TANNERS' SUPPLIES
*McClary Mfg. Co., London, Ont.
TAPS
*Butterfield & Co., Rock Island, P.Q.
*Pratt & Whitney Co., Dundas, Ont.
TAPES, measuring
The Lufkin Rule Co. of Canada, Ltd., Windsor, Ont.
TELEPHONE ACCESSORIES
*Northern Electric Co., Ltd., Montreal, Que.
TENTS
Turner, J. J., & Sons, Peterboro, Ont.
TERMINALS, electric cable
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
TERRA COTTA, architectural
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
TEXTILE SUPPLIES (shuttles, bobbins, spools and picker sticks)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.
THUMB SCREWS
*Canadian Billings & Spencer, Ltd., Welland Ont.

*For Display Advertisement see Index, Page 45

TIE TAMPERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
TILING, rubber
*Gutta Percha & Rubber Ltd., Toronto, Ont.
TIME RECORDERS
*International Business Machines Co., Ltd., Toronto, Ont.
TINWARE, lithographed
*MacDonald Mfg. Co., Ltd., Toronto, Ont.
TIRES, bicycle, auto, carriage, truck, motorcycle.
*Gutta Percha & Rubber Ltd., Toronto, Ont.
TOILET PAPER, towels, tissues
*Beveridge Paper Co., Ltd., Montreal.
TOOLS, pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
TOOLS, track
B. J. Coghlin Co., Ltd., Hamilton.
TOOLS, sheet metal workers'
Brown, Boggs Co., Ltd., Hamilton.
TRADE MARKS AND DESIGNS
*Ridout & Maybee, Toronto, Ont.
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
TRANSFORMERS
The Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
TRANSLATIONS INTO FRENCH
Raoul Renault, Quebec City.
TRANSMISSION MACHINERY
*Canadian Link Belt Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
TRAPS
*C. A. Dunham Co., Ltd., Toronto.
TROLLEYS
*Richard-Wilcox Canadian Co., Ltd., London, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
TRUCKS
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Northern Crane Works, Ltd., Walkerville, Ont.
TRUCKS, brick, tile and lumber
*Waterous Engine Works Co., Ltd., Brantford, Ont.
TRUCKS, motor
*National Steel Car Co., Ltd., Hamilton, Ont.
TRUCKS FOR OFFICE AND VAULT USE
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
TRUNKS
Lamontagne, Ltd., Montreal, Que.
J. Eveleigh & Co., Ltd., Montreal.
*The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto.
TUBING, brass and copper
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
Canadian Seamless Wire Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Co., Ltd., Montreal, Que.

TUBING, gold and silver
Canadian Seamless Wire Co., Toronto, Ont.
TUBES, ice cream
Fletcher Mfg. Co., Ltd., Toronto.
TUMBLERS, foundry
*Northern Crane Works, Ltd., Walkerville, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
TURBINES, steam
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines.
TURBINE PUMPS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
TWEEDS
Rosamond Woollen Co., Almonte, Ont.
TWINES
*Doon Twines, Ltd., Doon, Ont.
*Shurly & Derrett, Ltd., Toronto.
TWINES, binder
Brantford Cordage Co., Ltd., Brantford, Ont.
TWINES, cotton
Hamilton Cotton Co., Hamilton, Ont.
TWIST DRILLS
*John Morrow Screw & Nut Co., Ltd., Ingersoll.
*Pratt & Whitney Co. of Canada, Dundas, Ont.
UNDERWEAR
Galt Knitting Co., Ltd., Galt, Ont.
UNDERWEAR, imperial
Kingston Hosiery Co., Ltd., Kingston, Ont.
UNIONS
*Dart Union Co., Ltd., Toronto.
UPHOLSTERED FURNITURE, leather and tapestries
Imperial Rattan Co., Ltd.
VACCUM PUMPS
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
VALVES
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Jenkins Bros., Ltd., Montreal, Que.
*Kerr Engine Co., Ltd., Walkerville, Ont.
VALVES, for steam and water
*Jenkins Bros., Ltd., Montreal.
James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
VARNISHES
*Ault & Wiborg Co. of Canada, Ltd., Toronto, Ont.
R. C. Jamieson & Co., Ltd., Montreal, Que.
VAULT FITTINGS, steel
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
VAULTS AND VAULT DOORS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
VENTILATORS
*A. B. Ormsby, Ltd., Toronto, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.
WALLPAPERS
Staunton Limited, Toronto.

WASHERS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
WASHERS, plate or wrought
London Rolling Mill Co., Ltd., London, Ont.
WASTES, wool and cotton
Factory Waste & Metal Co., Montreal, Que.
WATERPROOF, cement coating
Benjamin Moore & Co., Ltd., Toronto, Ont.
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
*The Barrett Co., Ltd., Toronto and Montreal.
WATERPROOF, caselining
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
WATER PAINTS
Sturgeons Limited, Toronto.
WEBBING, elastic
Hamilton Cotton Co., Hamilton, Ont.
WEBBING, non-elastic
Hamilton Cotton Co., Hamilton, Ont.
WELDING APPARATUS AND MATERIALS
*The Presto-O-Lite Co., Toronto.
WELL-DIGGING TOOLS AND MACHINERY
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
WHEELS, corundum and emery
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
WELL DRILLING TOOLS AND MACHINERY
Oil Well Supply Co., Ltd., Petrolia, Ont.
WHIPS AND LASHES
Lay Whip Co., Rock Island, Que.
WHITE ARSENIC
Coniagas Reduction Co., Ltd., St. Catharines, Ont.
WHITE LEAD
*A. Ramsay & Son Co., Montreal.
WINDMILLS
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
WIRE
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*Laidlaw Bale Tie Co., Ltd., Hamilton, Ont.
WIRE BALE TIES
*Laidlaw Bale Tie Co., Ltd., Hamilton, Ont.
WIRE CLOTH
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*C. H. Johnston & Sons, Ltd., Montreal, Que.
WIRE, feeder and trolley
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
WIRE GUARDS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*C. H. Johnson & Sons, Limited, Montreal, Que.

WIRE, insulated electric
*Northern Electric Co., Ltd., Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
WIRE, weatherproof
*Northern Electric Co., Ltd., Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
WIRE ROPE
*Dominion Wire Rope Co., Ltd., Montreal, Que.
*The B. Greening Wire Co., Ltd., Hamilton, Ont.
WIRE WORK
*C. H. Johnson & Sons, Limited, Montreal, Que.
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*The Geo. B. Meadows, Toronto Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
WIRING DEVICES
*Northern Electric Co., Ltd., Montreal, Que.
WOOD
Standard Fuel Co., Toronto, Ont.
WOOD BORERS
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*Canada Machinery Corporation, Ltd., Galt, Ont.
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
WOOD PRESERVATIVES
Sturgeons Limited, Toronto.
WOOD PRINTERS
Barchard & Co., Ltd., Toronto.
WOOD PULP, mechanical
La Cie de Pulpe de Chicoutimi, Chicoutimi, Que.
WOOD SHOP, general work
*Canadian Rumely Co., Ltd., Toronto, Ont.
WOOD SPLIT PULLEYS
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
WOOL
*H. V. Andrews, Toronto, Ont.
WOOD TURNING
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
WORSTED COATINGS AND SUITINGS
Rosamond Woollen Co., Almonte, Ont.
WRAPPERS, book, bottle, etc.
*The Thompson & Norris Co. of Canada, Ltd., Toronto, Ont.
WROUGHT IRON PIPE
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
WROUGHT PIPE
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
YARNS, cotton
Hamilton Cotton Co., Hamilton, Ont.
ZINC
Consolidated Mining and Smelting Co., of Canada, Ltd., Montreal, Que.
ZINC, electrical
*The Canada Metal Co., Toronto.

JULIUS COHEN & JOSEPHY

BRADFORD, ENG. BOSTON, U.S.A. TORONTO, CAN. AREQUIPA, PERU

Foreign *Domestic* **WOOL** *Noils, Wastes and Shoddy*

Also operating THE YORKSHIRE WOOL STOCK MILLS, ALMONTE, ONT.

Manufacturers of Pulled and Carded Shoddies

H. V. ANDREWS Canadian Representative 13 Church St., Toronto

*For Display Advertisement see Index, Page 45

GROUP LIFE INSURANCE

Before very long, nearly every large employer of labor in Canada will have protected his employees by taking out a group life policy. Six years experience in the United States have proved to employers in that country that group insurance is worth much more than its very moderate cost. It discourages strikes and floating labor, and greatly improves the general relations between employer and employee. We claim credit for enabling this class of insurance to be obtained in Canada. Our work in this direction has naturally fitted us to give you the best and unbiased service as brokers. Let us work out for you the actual cost of insuring your employees.

WILLIS, FABER & CO.
OF ONTARIO, LIMITED
INSURANCE BROKERS. MANAGERS C.M.A. INSURANCE DEP'T
1401 TRADERS BANK BLDG., TORONTO

Cellboard is the proper name for what is commonly called corrugated board

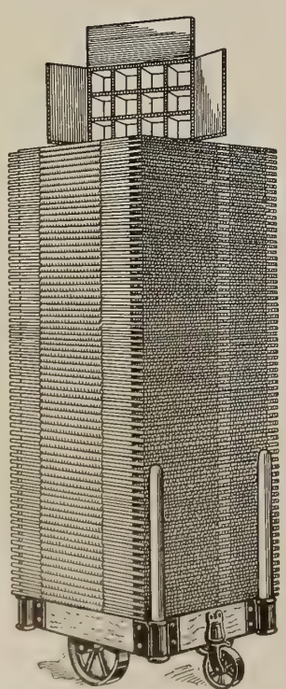
Established 1909

ADAMS CELLBOARD COMPANY

MANUFACTURERS OF FIRST QUALITY
SHIPPING CONTAINERS AND CORRUGATED PAPER

IMPORTERS OF
GUM SODA AND SEALING TAPES

Our board is the thickest on the market. Our capacity is a carload per day



OUR SPECIALTY
FOLDING CELLBOARD
FREIGHT BOXES

We desire to have your samples or measurements to quote on when you are considering placing an order

5 TO 21 DEFRIES STREET
AND DON ESPLANADE
TORONTO

British Columbia, the 1920 Convention Province—Page 69

Vol. XX., No. 12 TORONTO, APRIL, 1920 $2.00 per Year

INDUSTRIAL CANADA

Lord Leverhulme says:

"Now I hold strongly that the best investment for surplus profits is to expend them on judicious advertising, wisely and carefully planned, and executed with originality and forcefulness.

"These same surplus profits invested wisely in advertising then become a real 'gilt-edge' security, and a solid reserve of strength to meet days of difficulty, and to overcome, quietly but surely, the most frenzied of competition, and the business thus provided with reserve strength stands four-square to meet and overcome every attack."

J. J. GIBBONS LIMITED

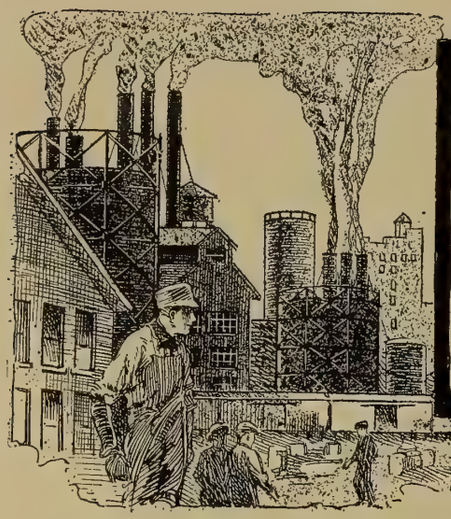
General Advertising Agents

MONTREAL Coronation Building
TORONTO 119 Wellington Street West
WINNIPEG Great West Permanent Bldg.

Cables—Gibjay, Toronto Code—ABC, 5th Edition

PUBLISHED BY THE CANADIAN MANUFACTURERS ASSOCIATION INCORPORATED.

HEAD OFFICE TORONTO · BRANCH OFFICES, MONTREAL, HAMILTON, WINNIPEG, VANCOUVER, HALIFAX, QUEBEC



STEEL PLATE CONSTRUCTION

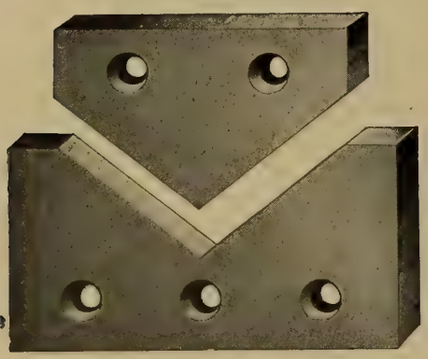
Oil Storage, Gasoline Tanks, Air Receivers, Pneumatic Water Supply Tanks, Smoke Stacks, Boiler Breeching, Riveted Steel Pipe, Bins and Hoppers

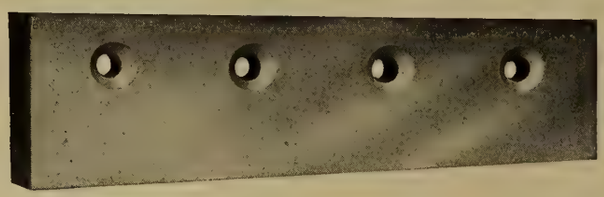
THE

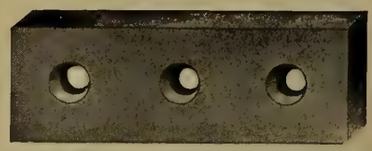
TORONTO IRON WORKS

LIMITED

HEAD OFFICE: ROYAL BANK BLDG. TORONTO WORKS: CHERRY STREET









Metal-Cutting Shear Blades

GALT KNIFE CO.

Limited

GALT ONT.

THE BRITISH AMERICAN OIL CO., LIMITED

REFINERS

Gasolene
Benzine
Kerosene
Fuel Oil
Road Oils
Paraffine Wax
Motor and General Lubricating Oils



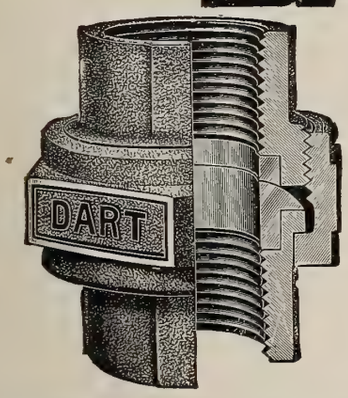
Branches:
Montreal
Ottawa
London
Windsor
St. Catharines
Oshawa
Hamilton
etc.

Head Office: ROYAL BANK BUILDING, TORONTO

BRONZE TO BRONZE AT THE JOINT
CANNOT RUST OR CORRODE

NO DETERIORATION—NO LOOSENING UP

DART UNIONS



The Union Pipe Couplings that are really Troubleproof and Economical ∴ ∴

Order From Your Jobber

Manufactured by Dart Union Co., Limited, Toronto



If it's a foundation, let The Foundation Company Limited build it. The beginning of a new 10 story building for Montreal. The piers and basement excavation are being put down through soil containing a five foot layer of quicksand. All the work was done with heavy frost in the ground.

Index to Advertisements.....Page 53 Contents.....Page 55

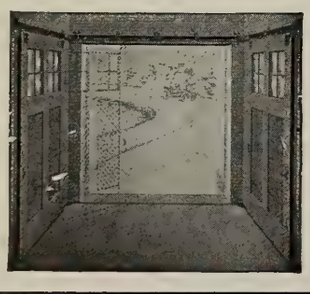


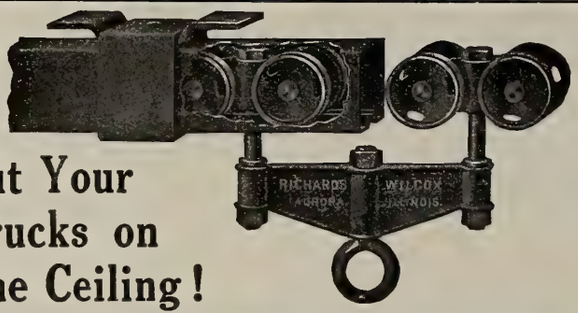
BULLDOG STEEL JOIST HANGERS

They never let go! Stronger than malleable. All sizes and styles for all kinds of work. Save space and time in erection.

GARAGE DOOR HARDWARE OF ALI- KINDS FOR ANY PURPOSE

Angle Doors, Parallel Doors, etc. Special jobs receive the prompt attention of our engineering department. Let us know your requirements.





Put Your Trucks on The Ceiling!

The Modern Method of Factory Transportation

A Richards-Wilcox Carrier System---either I-Beam or Trolley---will pay for itself in one year on actual pay-roll saving, not to mention the increased efficiency. Occupies no floor space. Always ready for use. Operates easily, one man can handle 2,500 lbs. Trolley carriers made in sixteen styles and sizes for loads up to 2,500 lbs. For heavier loads use I-Beam Equipment.

Catalogs Upon Request

Richards-Wilcox Canadian Co. Ltd.

AURORA BOSTON NEW YORK CHICAGO London Ontario PHILADELPHIA MINNEAPOLIS SAN. FRANCISCO ST. LOUIS

"A hanger for any door that slides"

"R-W" TROLLEYS ARE BEST FOR ALL SLIDING DOORS



Specified by leading architects and engineers throughout Canada and the United States. "A hanger for any door that slides."

FIRE DOORS AND FIRE DOOR HARDWARE WITH UNDERWRITERS' LABEL

All styles, single or double, sliding or swinging. A fire door with labeled hardware is the surest way to prevent fire from spreading.



SHOW YOUR SAMPLES UNWRINKLED

WARDROBE TRUNKS

for Suits, Coats, Dresses and Waists

WE MAKE SAMPLE TRUNKS AND CASES FOR EVERY BUSINESS

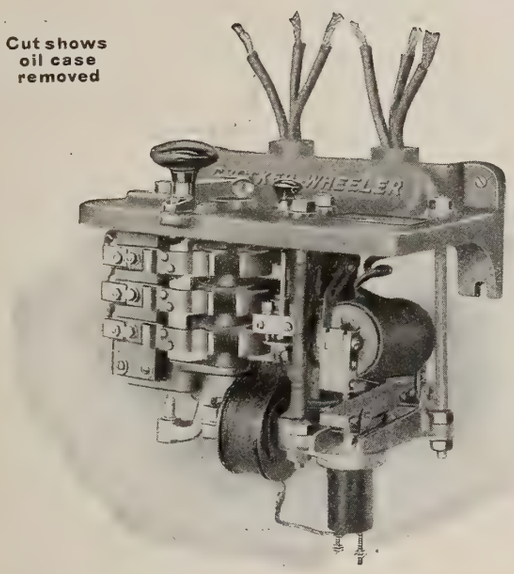
Let us know your needs and get our prices.

The M. Langmuir Mfg. Co. of Toronto Limited



Show This to Your Electrical Friend—

Cut shows oil case removed



HEAR HIM ENDORSE OUR CLAIMS FOR THIS CANADIAN CROCKER-WHEELER TYPE D.O. OIL SWITCH AS A LIFE SAVER FOR HARD WORKED MOTORS.

HERE ARE ITS VALUABLE FEATURES: COMPLETELY OIL IMMERSED, NO-VOLTAGE RELEASE ATTACHMENT, OVERLOAD RELAY PROTECTION ON ALL PHASES, OVERLOAD ADJUSTMENT, TIME LIMIT ADJUSTMENT, ARRANGED FOR CONDUIT WIRING.

OUR APPARATUS AND SERVICE NOW AVAILABLE AT

Northern Electric Company
LIMITED

Montreal Halifax Ottawa Toronto London
Winnipeg Regina Calgary Vancouver

THE CANADIAN
CROCKER-WHEELER COMPANY
LIMITED

Head Office and Works
ST. CATHARINES, ONT.

Manufacturers and Electrical Engineers

District Offices:
TORONTO and MONTREAL

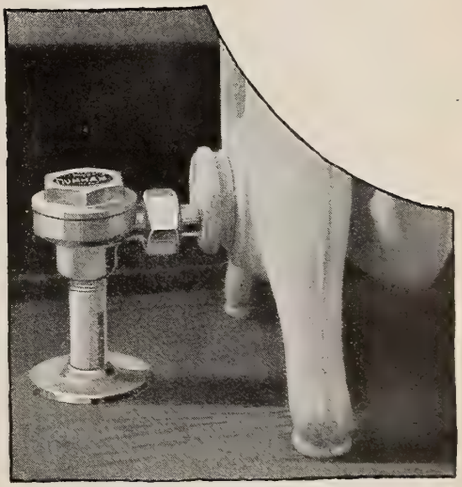
The Trap That Keeps the Radiator Hot

Any kind of a boiler will shove the steam up to a radiator. But it takes a mighty good trap to let all the air and water out without letting steam into the return line.

The Dunham Trap has been doing it since 1903—and doing it so well that you don't see many old-style traps nowadays. Everybody is busy pushing thermostatic disc traps. But do not forget that the Dunham was the FIRST radiator trap of this type.

The ***first*** of its kind—and the ***best*** of its kind according to many, many engineers, and to architects and heating contractors who know that quality counts above all else.

Our new booklet, "Data on Dunham Heating" tells some heating facts in an interesting way. May we send you a copy?



The Dunham Radiator Trap

The DUNHAM HEATING SERVICE

Made in Canada

C. A. Dunham Company, Limited, Toronto, Ontario

Halifax Vancouver Winnipeg Ottawa Montreal Calgary

London: 64 Regent House, Regent Street, W 1

STAYBOLT TAPS



The Better the Man, the More He Appreciates Them—

Not only good when new, but heat treated and seasoned to maintain this goodness. Can be ground on face of cutting edge without affecting their size. That's why you'll find Pratt and Whitney Stay Bolt Taps on the job long after cheaper "just as good" tools are buried in the scrap pile.

Threads accurately and cleanly cut, with the least expenditure of time and effort, are favorites in the shop.

If you've used them before, you know just how good they are. If you haven't, send us your first order—we know you'll be back for more. They're carried in stock in our sales rooms in all large cities.

OFFICES AND AGENCIES CARRYING PRATT AND WHITNEY SMALL TOOLS IN STOCK

New York: 326 Hudson St. Boston: 93-95 Oliver St. Philadelphia: 405 N. 21st St. Cleveland: 730 Superior Ave. Detroit: Kerr Bldg. Chicago: 571 W. Washington Blvd. St. Louis: 516 N. 3rd St. Cincinnati: 338 W. 4th St. Birmingham, Ala.: 2015 First Ave. San Francisco: 16 to 18 Fremont St. New Orleans, La.: C. T. Patterson Co., Ltd. St. Paul, Minn.: Robinson, Cary & Sands Co. Denver, Colo.: Hendrie & Bolthoff Mfg. and Supply Co. Canada: Pratt and Whitney Co. of Canada, Ltd., Dundas, Montreal, Toronto, Winnipeg and Vancouver.

PRATT & WHITNEY CO.
OF CANADA, LIMITED
Works: **DUNDAS, Ontario**

MONTREAL
723 Drummond Bldg.
TORONTO
1002 C.P.R. Bldg
WINNIPEG
1205 McArthur Bldg.
HALIFAX
Davidson Bldg.
VANCOUVER
B.C. Equipment Co

PRATT AND WHITNEY

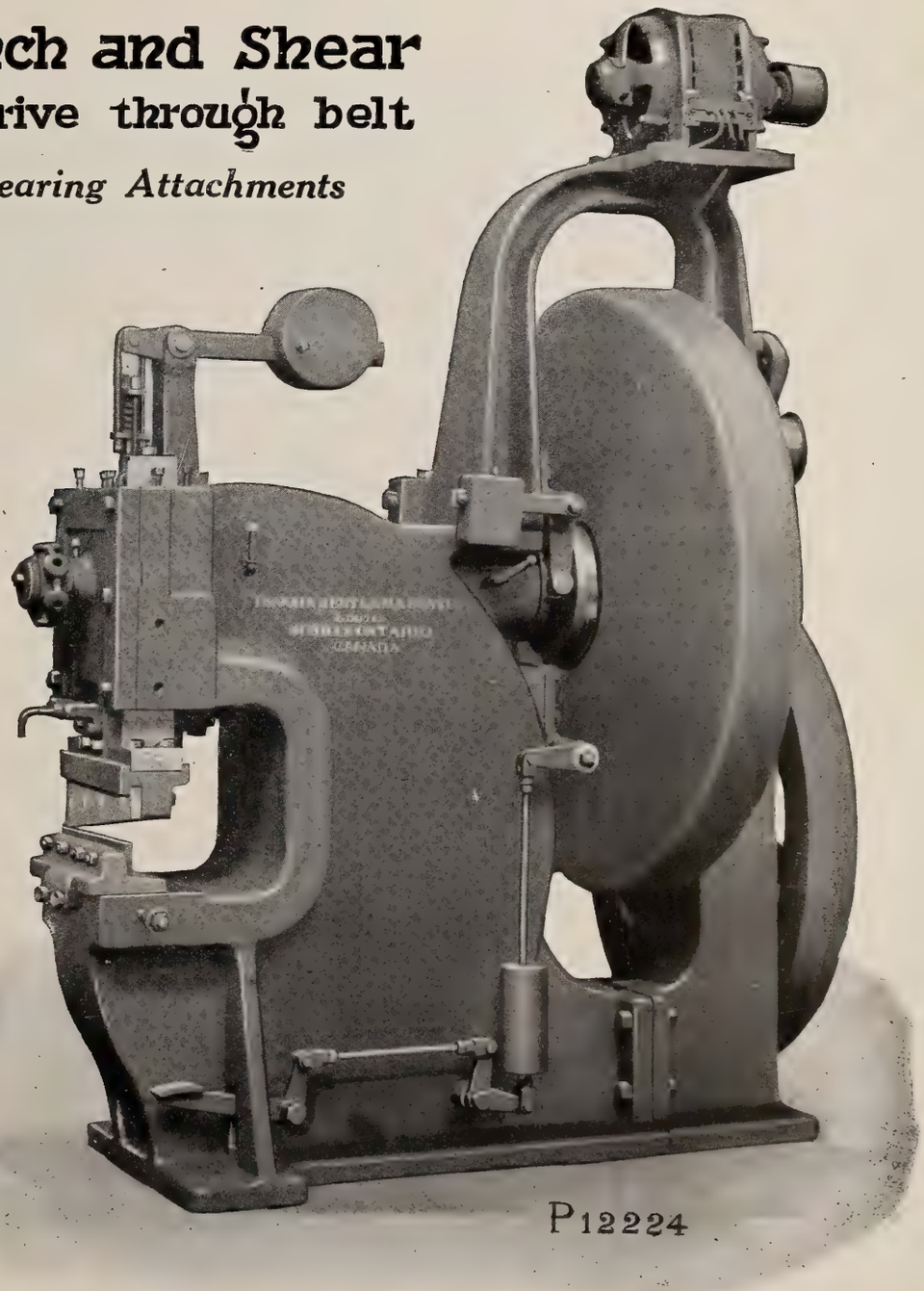
The BERTRAM Page

MACHINE TOOLS

No.4 Single Punch and Shear

12" Throat Motor Drive through belt

Fitted with Plate Shearing Attachments



Capacity

To punch 1" hole through 1" Plate
To shear 1" Plates
To " 6"x1" Flat Bars
To " 1¾" Round Bars
To " 4x4x⅜" Angles

The John Bertram & Sons Co., Limited
DUNDAS. ONTARIO.

MONTREAL
723 Drummond Bldg.

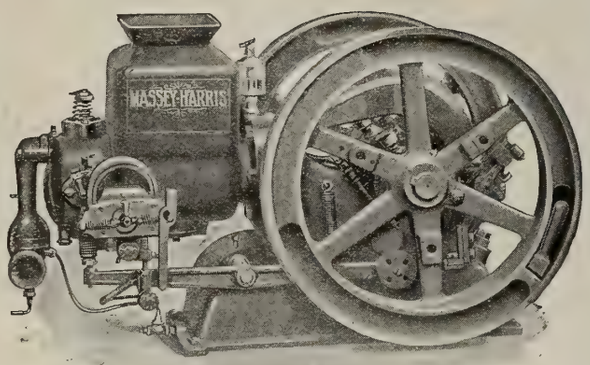
TORONTO
1002 C.P.R. Bldg.

VANCOUVER
609 Bank of Ottawa Bldg.

WINNIPEG
1205 McArthur Bldg.

HALIFAX
Davidson Building

Massey-Harris



An Engine You Can Depend On

The Massey-Harris Engine can be depended on to give all the year 'round service in any kind of weather at minimum cost, because it's designed on scientific principles and every part built to stand up and wear long.

Think what these features mean:

Simple in operation.

A Simple and Efficient Carburetor gives a perfect mixture in any kind of weather.

Effective Governor—No charge or spark on Idle Stroke.

Valves Easily Removable.

Large Water Space surrounding Cylinder.

Safe Gasoline Storage in the substantial Cast-Iron Base.

Write for more detailed description of the Massey-Harris Gasoline Engine.

Made in Sizes to deliver from 2 to 15 H.P.

MASSEY-HARRIS CO., Limited

Head Office—Toronto, Canada

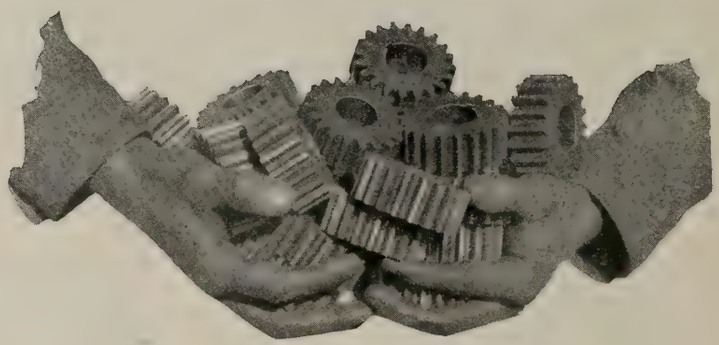
Canadian Branches at

Montreal Moncton Winnipeg Regina Saskatoon
Swift Current Yorkton Calgary Edmonton

AGENCIES EVERYWHERE

CUT GEARS

For Delivery



of Good Gears

Write Us

Hamilton Gear Co. Ltd.

Van Horne St. - TORONTO

Efficient Transfer Cases

Do you ever send your stenographer or secretary to find some last year's correspondence and have her, in turn, get the office boy and wade through the old type of filing case? Perhaps they have to lift down several cases to get at the right one—and in the meantime you wait. With the

MEADOWS STEEL TRANSFER CASE

you have no such trouble, no waits. Your last year's correspondence is ***just as accessible as your daily mail of this season.***



There is only the first cost. Meadows Steel Transfer Cases will not wear out or break under every day working conditions. They will stand an unusual amount of rough handling. Best of all they are the efficient case—dustproof, fireproof.

You can buy one Meadows Transfer Case and add more as you need them. They interlock, one above the other, to any height desired. They are sturdily built, are free running and take up little floor space.

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The frame is constructed of flat steel bars, welded to withstand any unusual strain. Note the measurements and compare with other makes.

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Meadows Steel Transfer Cases interlock without the use of bolts. A notch in the back leg of each case hooks into the one below and prevents the case from tipping when the drawer is pulled out. This gives a rigid construction to the stack.

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Each drawer has 26 inches of filing space—the most clear filing space of any case on the market. This point is well worth considering.

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Letter size, 12″ wide, $10\frac{5}{4}$″ high and 26″ deep. Outside measurements, $12\frac{3}{4}$″ wide, $12\frac{1}{16}$″ high and $26\frac{1}{4}$″ deep. A stack of four crated for shipment weighs 125 lbs.
Prices will be sent on receipt of information as to the quantity you can use.

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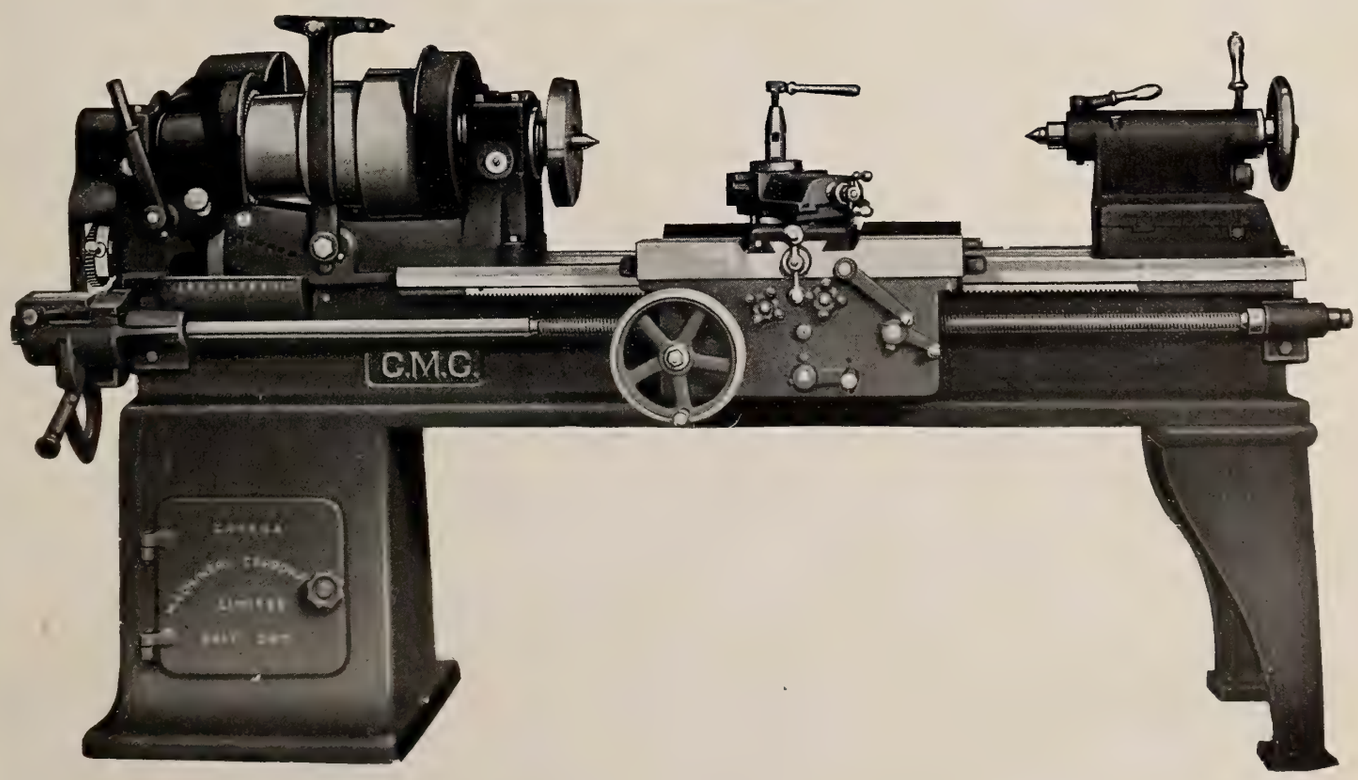
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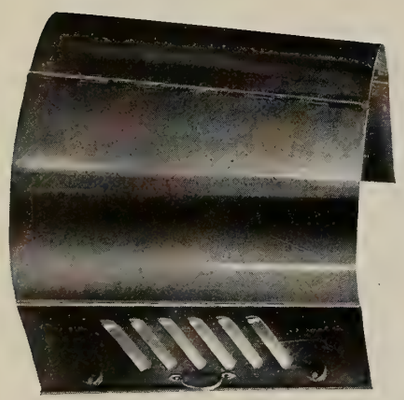
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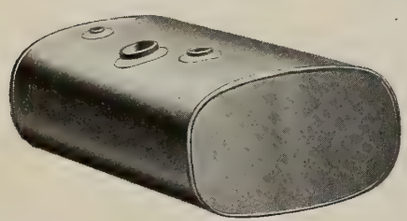


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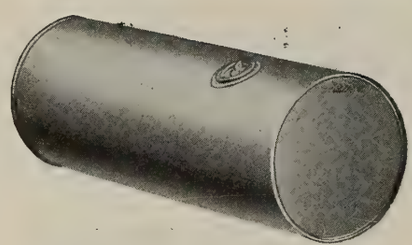
Are you using castings or forgings when perhaps a stamping would not only be more economical but would serve better?

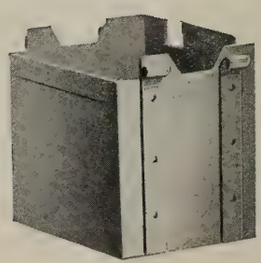
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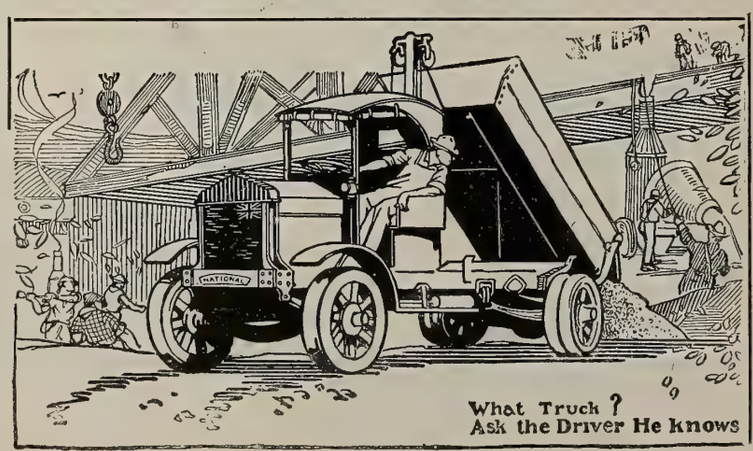




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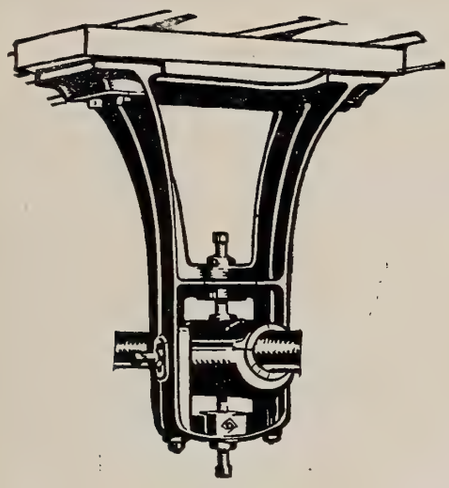
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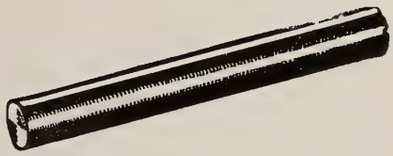


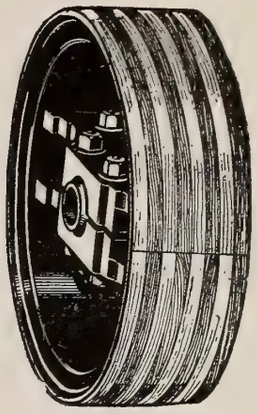
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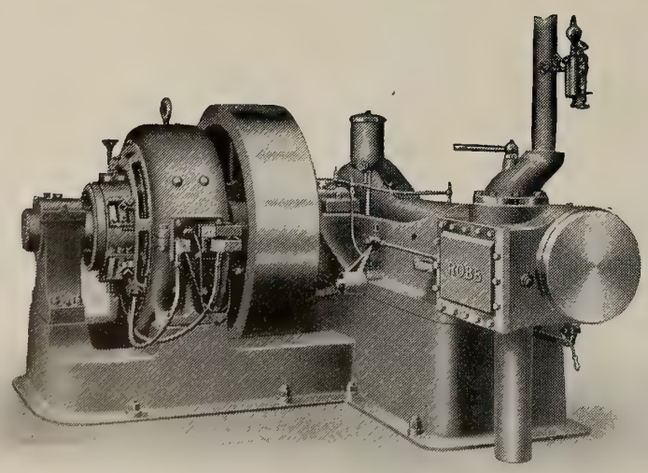
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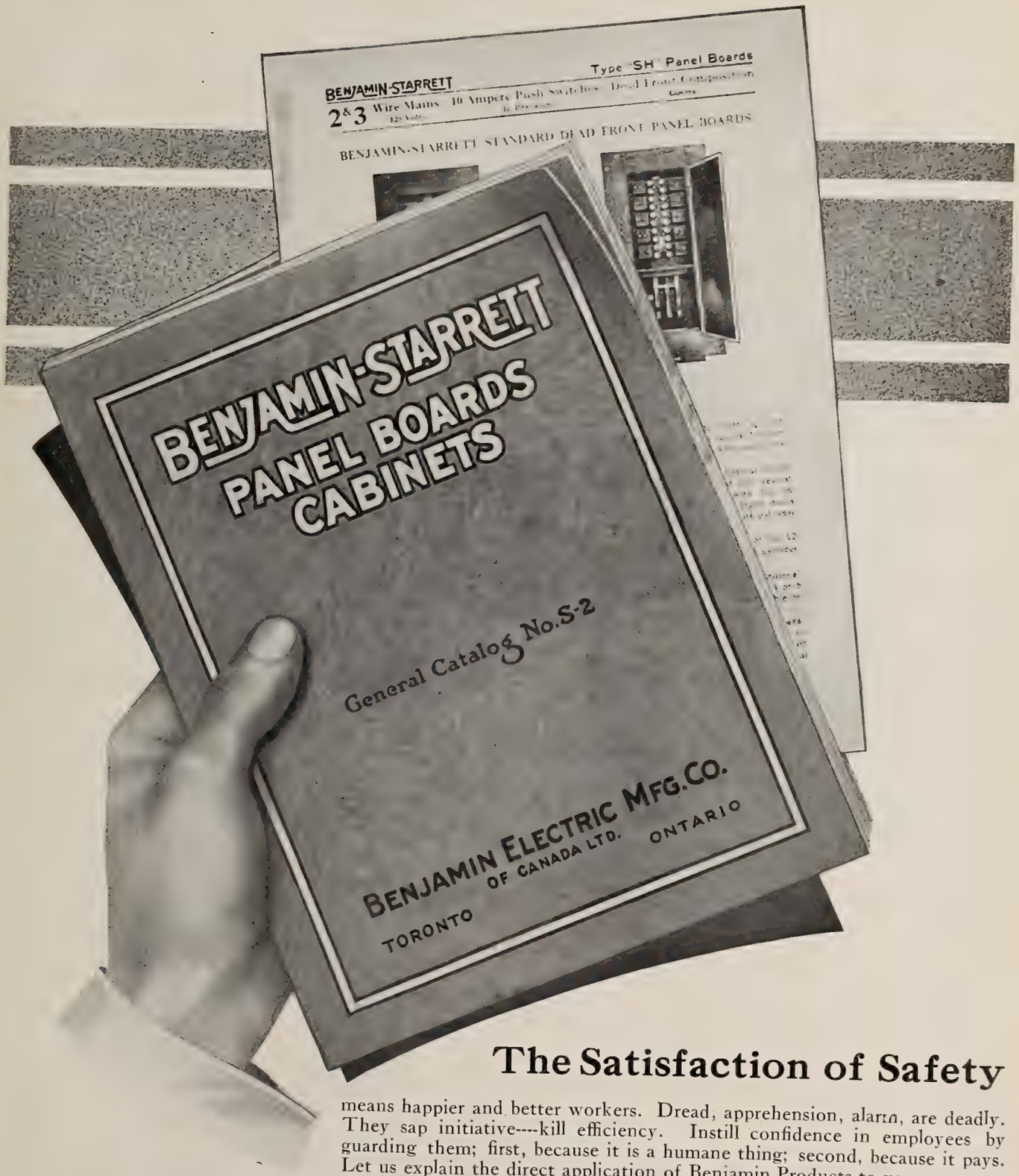
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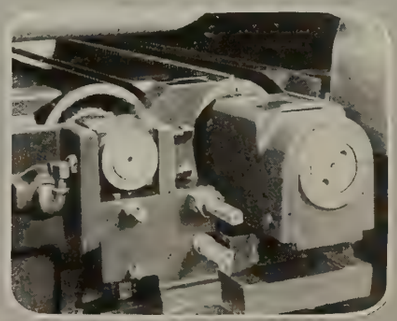


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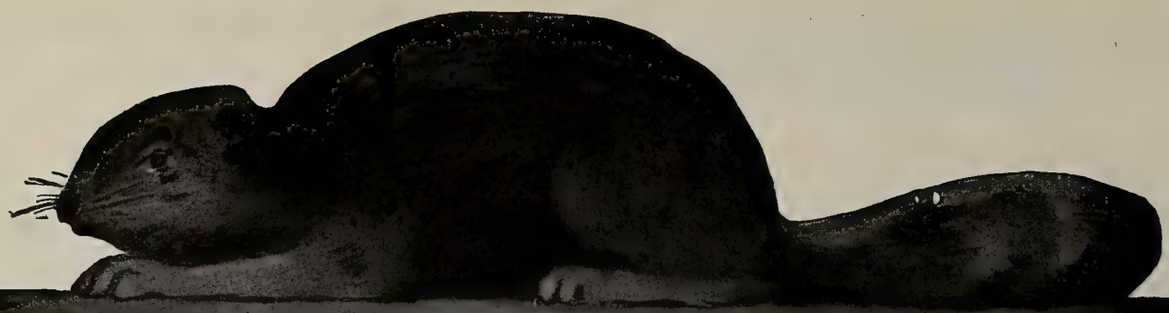
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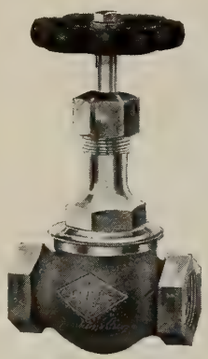


Fig. 106

Jenkins Valves

MADE IN CANADA

The Mark of the "Diamond" is the Symbol of Service

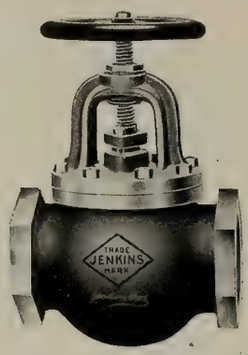
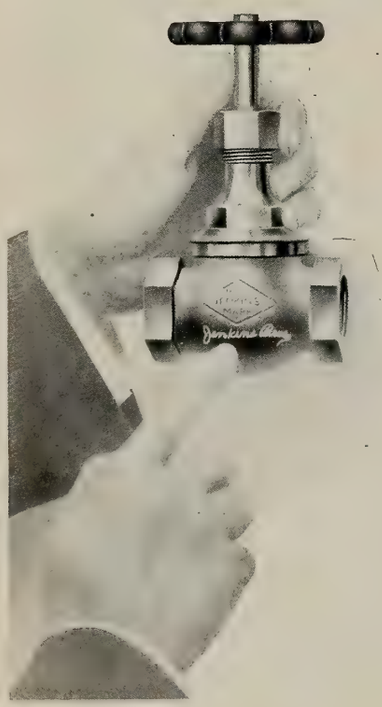


Fig. 141



The Jenkins Diamond, the distinguishing mark of unvarying service, is on the body of all Jenkins Valves, Brass, Iron and Cast Steel.

These include types and sizes to meet all requirements.

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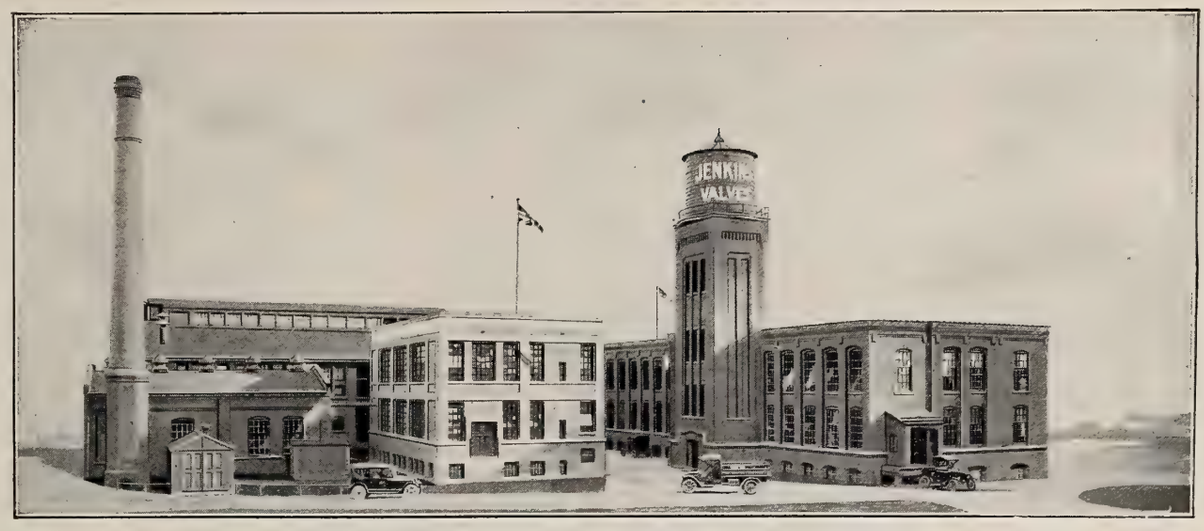
Montreal, Canada

European Branch:

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Kingsway

London, W.C. 2, England



Brass Valve Division, Jenkins Bros. Limited
Montreal, Canada



Fig. 300

The manufacture of Jenkins Valves commenced in 1864.

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Fig. 403



Fig. 401

A popular addition to the Jenkins line, since its manufacture commenced in Canada, is the TYPE "K" GATE VALVE—made in Brass and Iron Body—in sizes 1/4" to 3" and 2" to 24" respectively, screwed and flanged, with stationary and rising spindle.

The next time you want a Gate Valve try a JENKINS TYPE "K"

Stocked by all Dealers



Fig. 402

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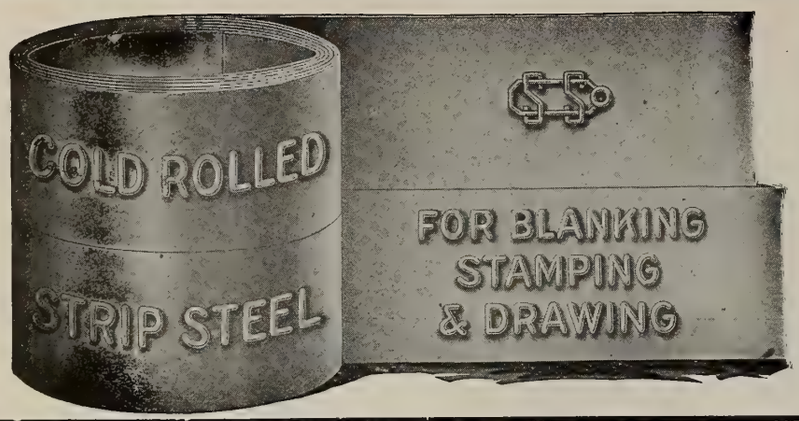
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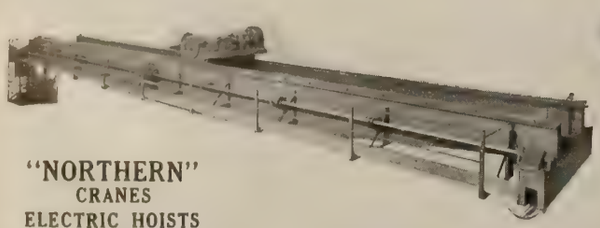
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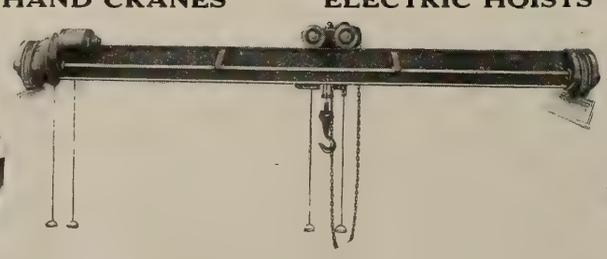
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FOR WET LAPS OR BALING PRESSED PULP OR PAPER

WASHING MACHINES
FOR CHEMICAL PULP
CYLINDER MOULDS
"STANDARD OR SPECIAL"
PRESS ROLLS OR SPECIAL FELT ROLLS
DRYING MACHINES OR PARTS
MIXING TANKS

SATISFACTION

WE SPECIALIZE IN THE MANUFACTURE OF MACHINERY FOR THE PULP AND PAPER MILL TRADE AS WELL AS ALL HYDRAULIC EQUIPMENT--TRY US

The Hydraulic Machinery Co.
Limited

Montreal - - - - Canada

Snagging With An Alundum Wheel

For snagging or surfacing manganese steel castings Alundum grinding wheels have proved their worth.

The crane wheel shown below has rough burrs and ridges left by the moulding. These are effectively and quickly removed with an Alundum wheel, grain 24, grade R.

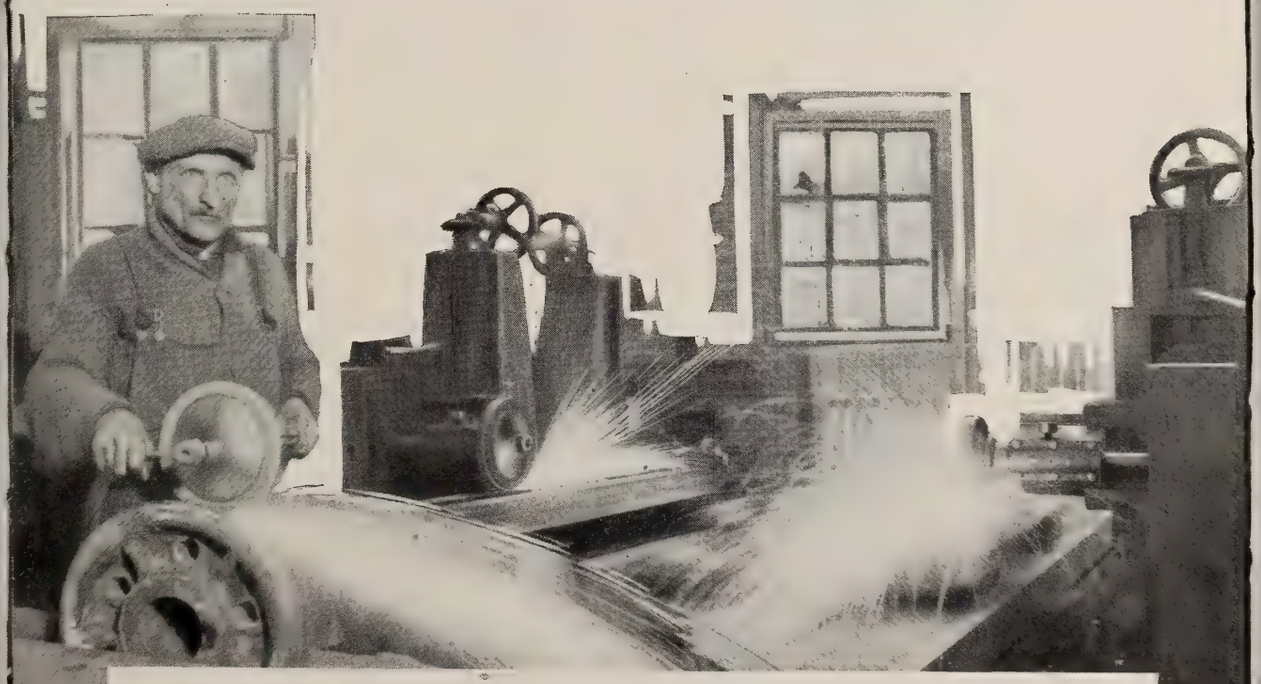
The surface grinding of manganese steel crusher segments on planer type machines is another severe operation for the grinding wheel. Alundum vitrified wheels, grain 24, grade M, do this work successfully.

Such rough grinding operations call for a free, rapid, cool cutting grinding wheel. ALUNDUM WHEELS HAVE THESE QUALITIES. Why not try them?

NORTON COMPANY

WORCESTER, MASS.

ELECTRIC FURNACE PLANTS
NIAGARA FALLS, N. Y.
CHIPPAWA, ONT., CANADA



NORTON PRODUCTS ARE:

Alundum Grinding Wheels, Crystolon Grinding Wheels, Alundum Grain for Polishing, Glass Cutting Wheels, Razor Hones, Scythe Stones, Alundum Refractories, Alundum Safety Tile, Rubbing Bricks and Sticks, Grinding Wheel Dressers, Complete Line of Grinding Machines, Bench and Floor Stands.



Window Guards

For Stores, Warehouses, Factory Basement Windows, etc., and all kinds of

WIRE WORK

Manufactured by

The B. Greening Wire Co., Limited

HAMILTON, ONT. MONTREAL, P.Q.

SPECIAL MACHINERY

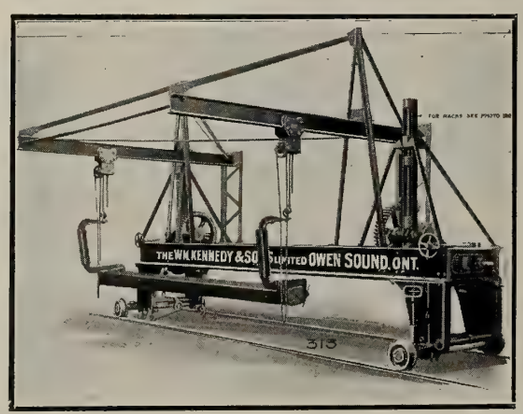
BUILT TO ENGINEERS' DRAWINGS and SPECIFICATIONS



PROPELLER WHEELS

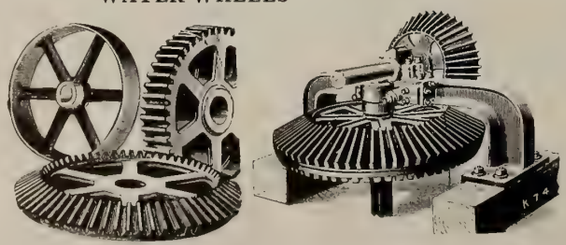


WATER WHEELS



STOPLOG WINCHES

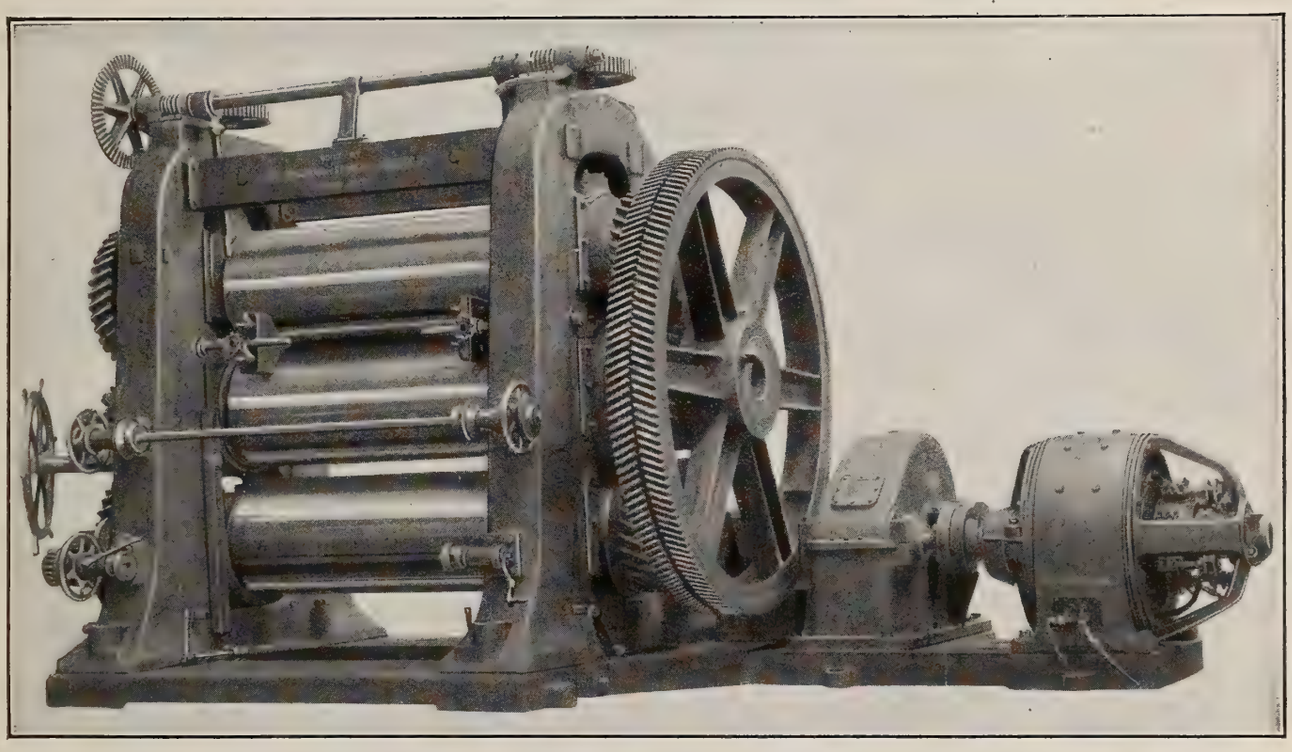
Gears



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24″ x 66″ 3 Roll W-S-M Rubber Calender--Front View

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Rubber Machinery Department

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Blooms, Billets and Slabs
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STEEL RAILS – Open Hearth Quality
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"Cushions the Cobbles"

THE NEW Overland Four-Door Sedan, is cosy, luxurious and more—

It is the only Sedan with *Triplex* Springs, which give maximum *riding comfort* over cobble stones and bumps.

This beautiful and luxuriously furnished Sedan is fully equipped from Electric Starting and Lighting to Speedometer and Electric Horn. It is light in weight, economical on tires and fuel.

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Strong—Soft—Neutral

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Furnished to all Standard Analyses

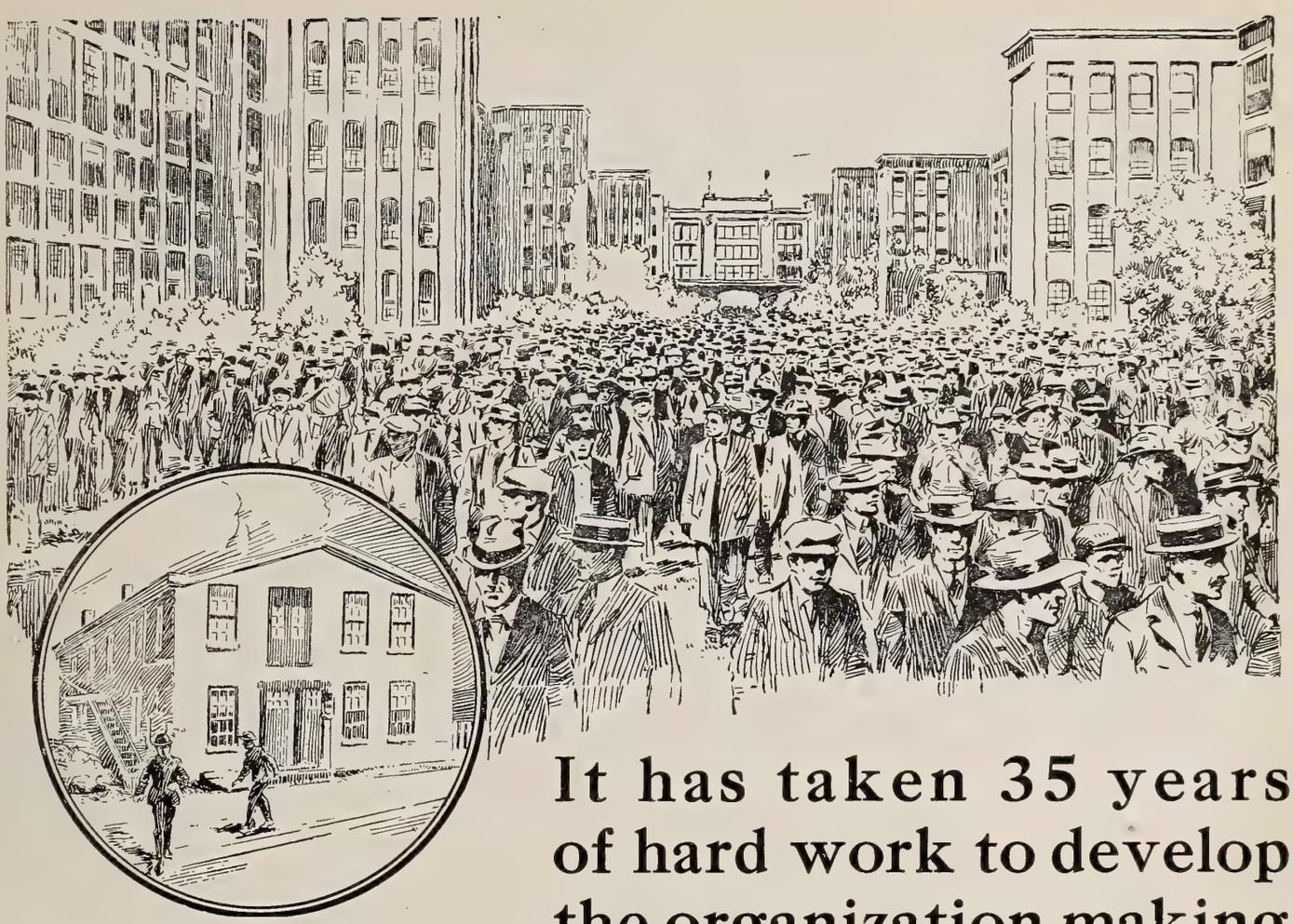
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M. A. HANNA & CO.

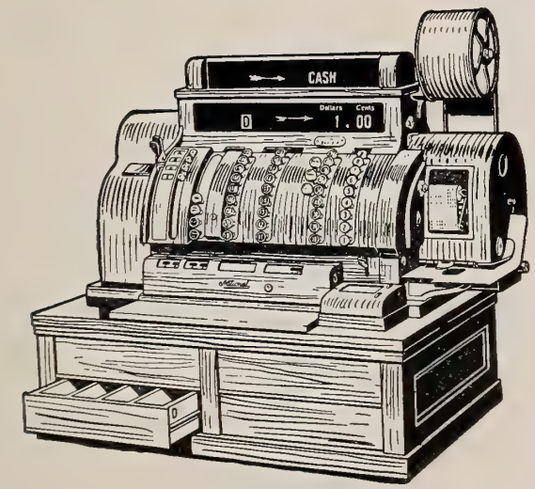
Cleveland, Ohio

BUFFALO, N.Y. PITTSBURG, PA. DETROIT, MICH.

TORONTO, ONT.



It has taken 35 years of hard work to develop the organization making National Cash Registers



STARTING with two employees in one little room, The National Cash Register Company now has a making organization of over 7,000 people working in 21 big buildings.

It has taken 35 years to develop this tremendous organization.

Many obstacles had to be overcome in those years. Money, time, and energy were thrown into the enterprise by large-visioned men who believed that cash registers were a necessity in stores of all kinds.

Slowly but surely the business grew. Building after building sprung up to house the expanding organization.

The National Cash Register factory of to-day is the result. It is built on a foundation of faith in the cash register as a business necessity. It is dedicated to the making of a labor-saving machine that helps merchants, clerks and customers.

The National Cash Register Company of Canada, Limited

Factory: Toronto, Ontario

Branch Offices:

Calgary	714 Second Street W.
Edmonton	5 McLeod Building
Halifax	63 Granville Street
Hamilton	14 Main Street E.
London	350 Dundas Street
Montreal	122 St. Catherine Street W.
Ottawa	305 Bank Street
Quebec	133 St. Paul Street
Regina	1820 Cornwall Street
Saskatoon	265 Third Avenue S.
St. John	50 St. Germain Street
Toronto	40 Adelaide Street
Vancouver	524 Pender Street W.
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CANADIAN MM C

CANADIAN MM C

Hoisting and Conveying Machinery

Manufactured in Canada

For half a century "Mead-Morrison" machinery has been recognized as standard equipment because of the DEPENDABLE SERVICE it renders at continuous top notch speed.

Among the numerous Canadian purchasers of complete "Mead-Morrison" Labor Saving Plants are:

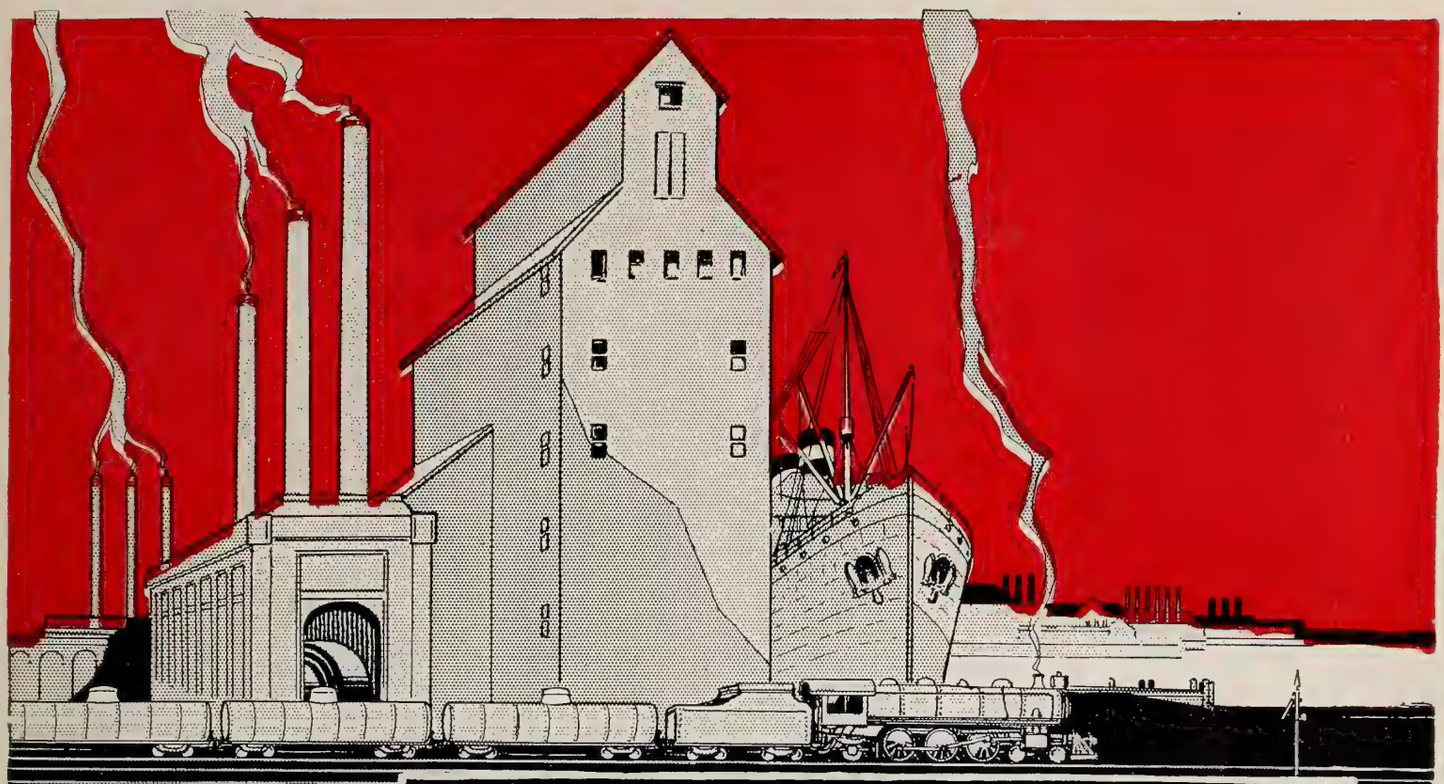
CANADIAN PACIFIC RAILWAY
CANADIAN NORTHERN RAILWAY
CANADIAN GOVERNMENT RAILWAYS
GRAND TRUNK RAILWAY
CANADA CEMENT COMPANY
STEEL COMPANY OF CANADA
MONTREAL LIGHT, HEAT AND POWER COMPANY

and many large Coal Companies and Manufacturing Concerns.

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May we assist YOU with your material handling problems?

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LIMITED
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For Manufacturing, Mining and Milling

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Imperial Atlantic Red Engine Oil
Imperial Junior Red Engine Oil
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Imperial Lubricants are designed to meet definite needs and conditions. Made from the best crudes they are formulated and designed for real service. They are Canadian-made and readily obtainable everywhere in Canada through our extensive distribution system.

There is a "just right" grade of lubricant for each type of machinery and for each moving part—railroad, marine, power plant, factory and mill. The right use of Imperial Lubricants will reduce your overhead.

Imperial Lubrication Engineers are at your service for consultation. Their co-operation and recommendation for better lubrication are part of Imperial Oil Service.

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Made in Canada

SOLD THE WORLD OVER

Second to None in

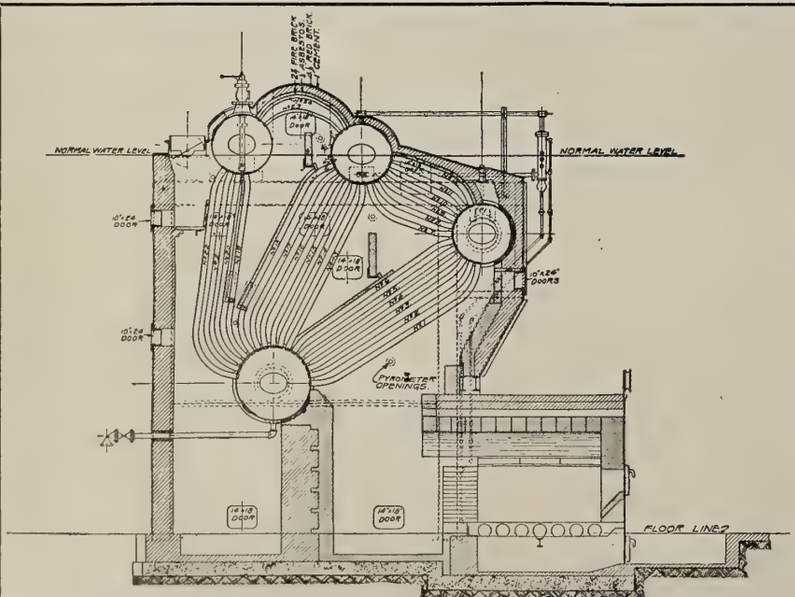
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Canada Carbide Company, Limited

MONTREAL - CANADA

Works:
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CONNELLY WATER TUBE BOILERS (Patented U.S. & Canada)

are of the 4 drum type, have 100% tube area in the path of circulation, and deliver steam superheated to from 5 to 10 degrees Fahrenheit.

Simple in design, no flat surfaces, no stay bolts, no crown bars, no braces, no handholes, free from joints.

All parts easily accessible for cleaning, both internally and externally.

Can be built in units from 200 H.P. up to 4,000 H.P. and 300 lbs. pressure.

100,000 H.P. in successful operation.

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AGENTS: E. J. Philips & Sons, 103 Hamilton Trust Building, Toronto, Ont.
Wm. W. Hicks, 567 Banning Street, Winnipeg, Man.
George Stewart, 5 Lineham Block, Calgary, Alta.
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ESTABLISHED 1834

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We maintain in our employ a staff of practical and expert welders, technically trained, to assist you in any matter connected with the Oxy-Acetylene Process or upon which you may need advice. No charge is made for this Service, our object being to make the Oxy-Acetylene Process as profitable to you as it has proven to others. Your enquiries addressed to our nearest Office or Factory will be appreciated and receive prompt and careful attention



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The Superior Material

PILLAR BRAND Wall Plasters are unusually rich, carries the maximum amount of sand, spreads well under the trowel, gives uniform satisfaction in working qualities, and ultimately results in a finished wall---hard as a rock---that lasts as long as the building.

PILLAR BRAND Wall Plaster covers the interior wall of the building with a closely knit crystallized body--Rock Gypsum that resists leaks, fire, and the wear and tear of occupancy.

PILLAR BRAND Wall Plasters adhere equally well to wood or metal lath, Plaster Board, Gypsum Tile, Clay Tile, Brick or other plastering surfaces. It has wonderful adhesiveness and strength, greatly increasing the durability of the walls.

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TRADE P.M.S MARK

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P.M.S.—"PAPER MILL SPECIAL"—TRADE MARK

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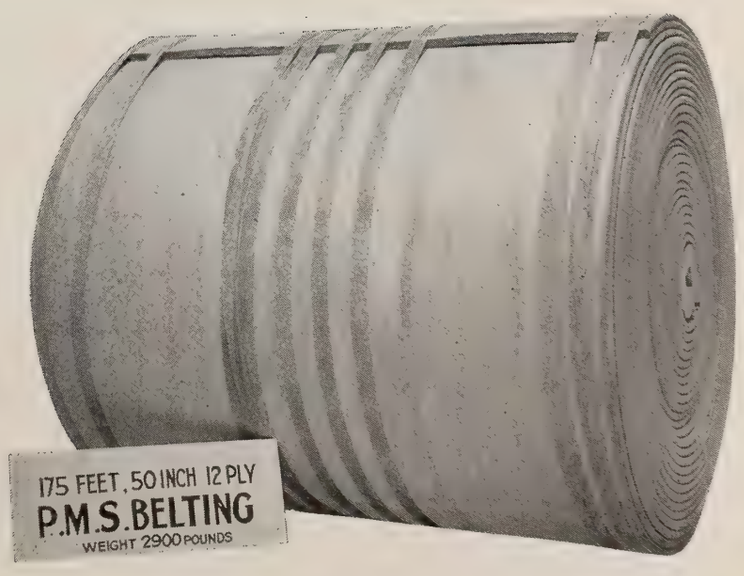
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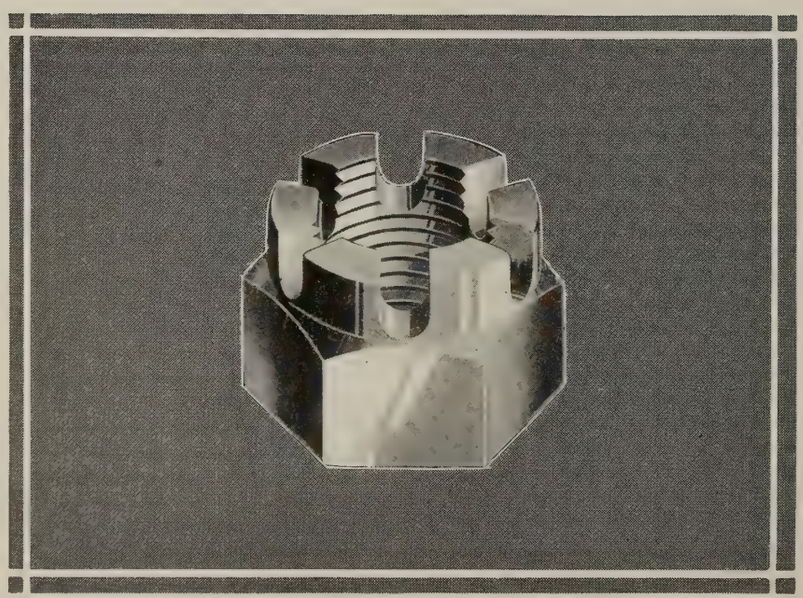
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Owing to the market shortage of raw material, it is to the customers' advantage that they anticipate requirements as far ahead of use as possible



SPECIAL SCREW PRODUCTS TO SPECIFICATIONS

THE NATIONAL ACME COMPANY
MONTREAL, P.Q.

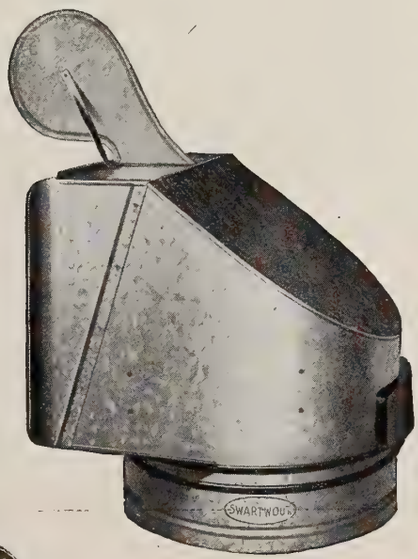
DE COURCELLES G.T.R.

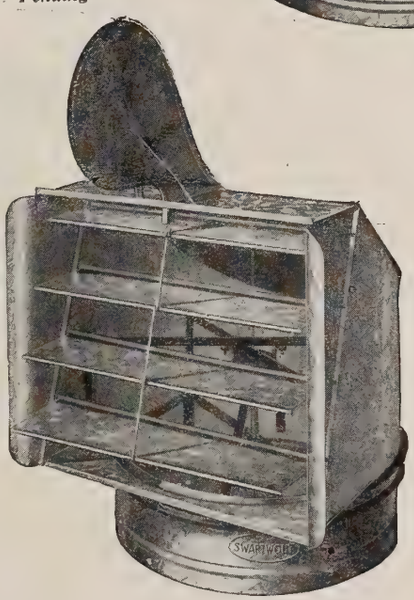
Ormsby-Swartwout

Rotary Ball Bearing Ventilators for Fresh Air Insurance

ORMSBY-SWARTWOUT Rotary Ball-Bearing Ventilators put the wind to work to provide constant and adequate ventilation without operating expense. Rotating on sensitive ball-bearings and controlled by an ample vane, an "Ormsby-Swartwout" responds to the slightest wind-current, always facing *away from* the wind. The passing breeze creates a continuous suction which pulls out the bad air from below.

Patented April 15, 1913 May 28, 1913 Other Patents Pending





Side and front view of standard type. The adjustable louvers are shown in open position. Note both the unobstructed passage for air and the ample size of vane controlling rotation.

Our 24-page handbook, **"The Gospel of Fresh Air"** giving authoritative facts and figures on ventilation, mailed to executives on request.

The A. B. Ormsby Company, Limited

ASSOCIATED WITH THE METAL SHINGLE AND SIDING COMPANY, LIMITED

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TORONTO PRESTON MONTREAL
WINNIPEG SASKATOON CALGARY

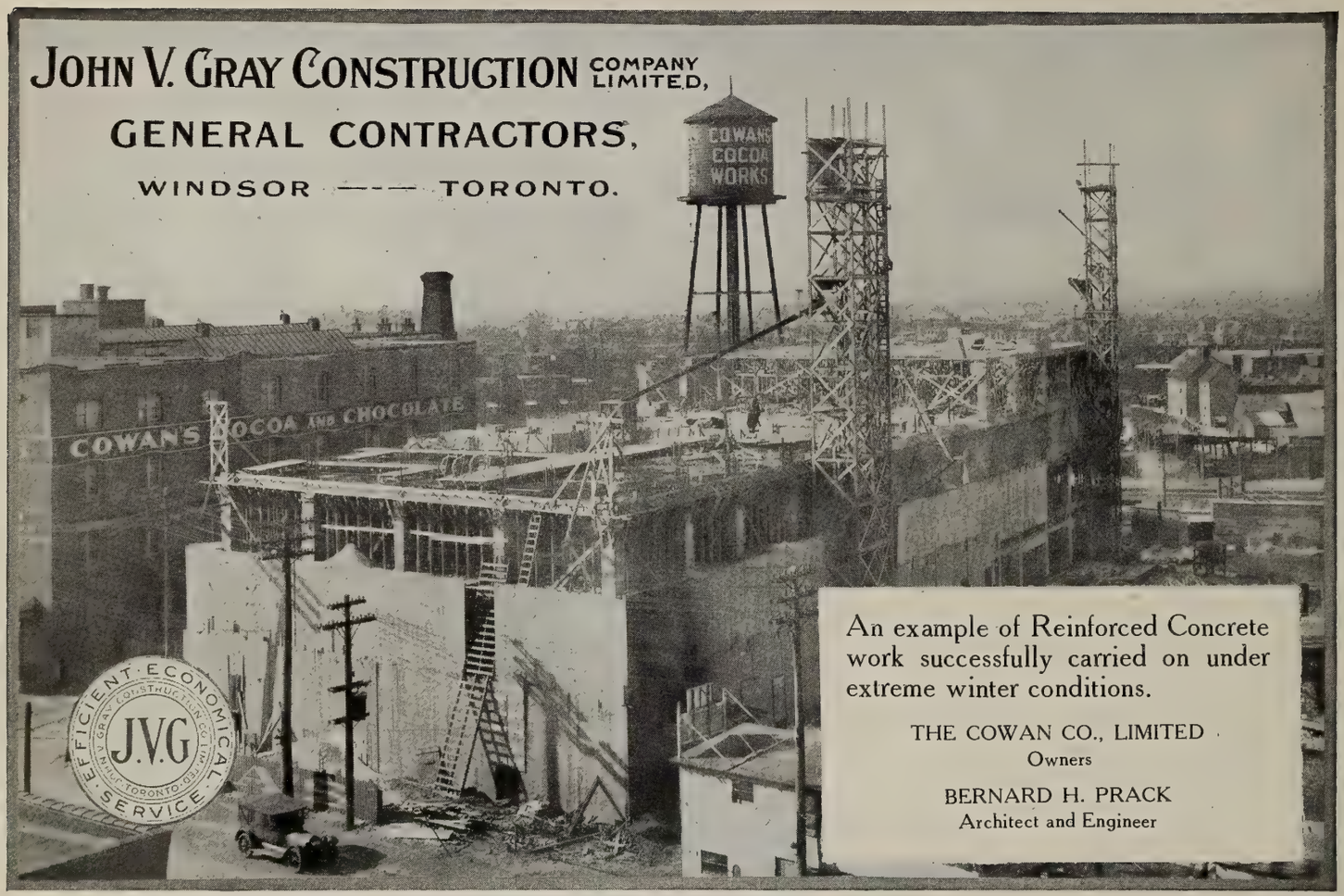
Agents:

Maritime Provinces: F. A. Gillis & Co., Halifax, N.S.
British Columbia: A. T. Chambers, Vancouver, B.C

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GENERAL CONTRACTORS,

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An example of Reinforced Concrete work successfully carried on under extreme winter conditions.

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Owners

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The illustration shows our "JUMBO" Planer for large timbers.

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PRODUCED IN CANADA

BY

The Consolidated Mining and Smelting Co., of Canada Limited

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COPPER—Electrolytic Ingot, Bar, Slab and Cake
PIG LEAD—Chemical, Corroding and Common
ZINC (Spelter)—High-Grade Electrolytic Zinc, Brass Special and Prime Western

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A Solvent for Metal Troubles

INCo MONEL METAL TRADE MARK

You use steel for Strength

Bronze to resist Corrosion

Monel metal

for both

Stronger than Steel

MONEL METAL is a natural alloy (by direct smelting) of Sudbury Nickel Ores. Its COMPOSITION approximates 67% nickel, 28% copper, 5% other metals.

MONEL METAL combines three predominate features—the strength of steel, the utmost resistance to corrosion, and a bright, white, nickel finish.

These properties have led to its adoption in many fields of industry.

For example :

In POWER HOUSES it is used for valve parts, turbine blading, and for liners and rods in feed water pumps.

Better than Bronze

In STEEL PICKLING it is used for pickling crates and pins, tie rods, bolts, washers, nuts, etc.

In DYE HOUSES it is used for tanks, yarn racks, spiders, shafting, etc.

In CHEMICAL PLANTS it is used for tanks, agitators, filter cloths and parts of acidulators, washers, evaporators, pumping machinery, etc.

In PACKING HOUSES it is used generally for equipment coming in contact with brine and salt.

MISCELLANEOUS applications for MONEL METAL include ink handling machines, window screens, refrigerating machinery and refrigerators, laundry machinery, etc.

We invite your enquiries

The International Nickel Company of Canada, Limited

HARBOR COMMISSION BUILDING

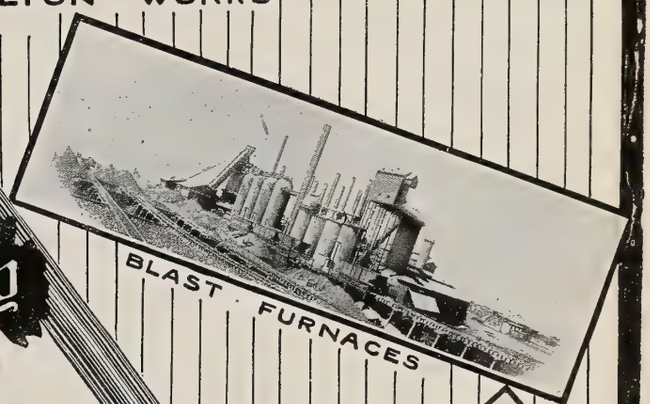
Toronto, Ont.



GENERAL VIEW HAMILTON WORKS
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BY-PRODUCT COKE OVENS



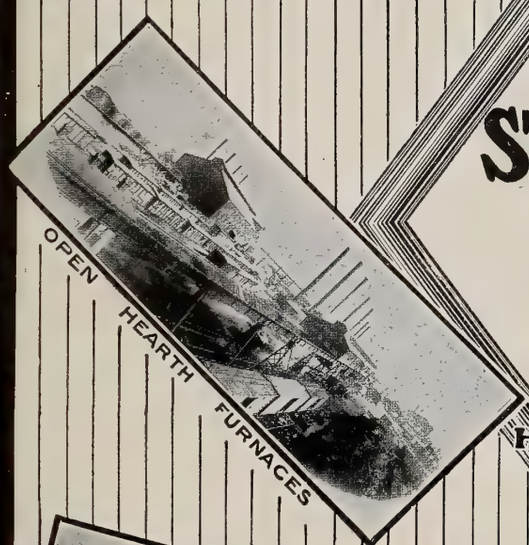
BLAST FURNACES

Quality

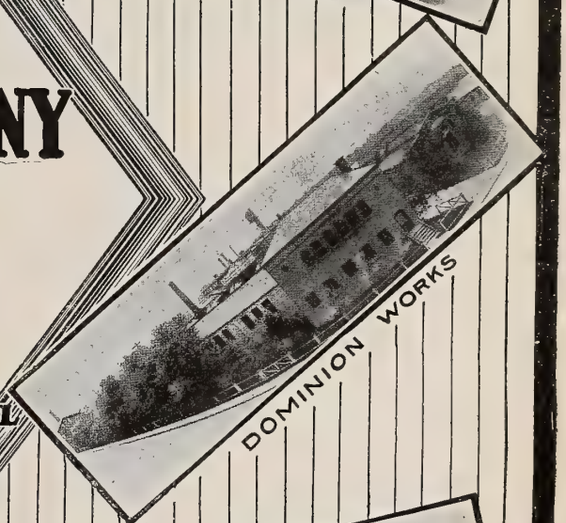
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STEEL COMPANY
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Service



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DOMINION WORKS



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GENERAL VIEW OF NOTRE DAME WORKS
MONTREAL

WEATHER-PROOF LAMP AND SWITCH CONDULETS



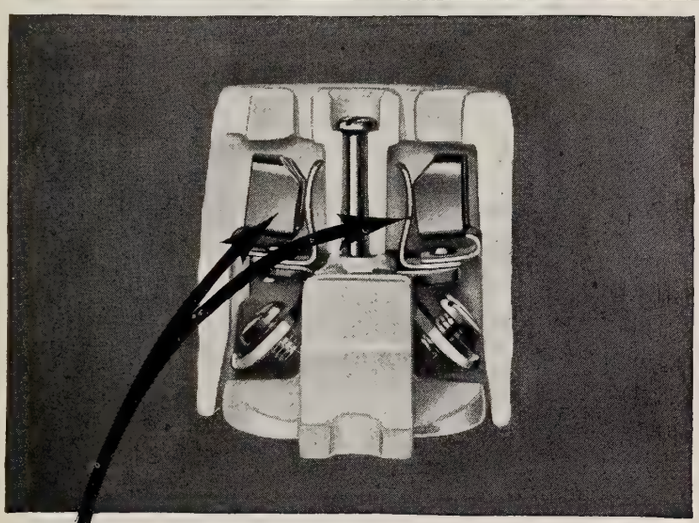
VAPOR, GAS
and
DUST-TIGHT

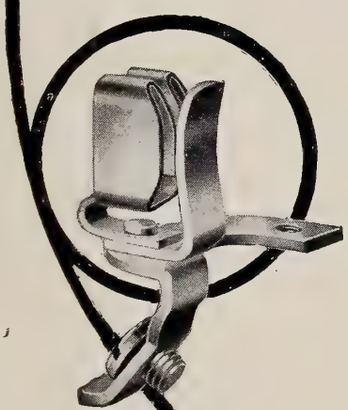
Give maximum protection to both lamp and switch.

Make a safe and permanent lighting equipment for all hazardous locations.

Write for Complete Condulet Catalog

CROUSE-HINDS COMPANY
OF CANADA, LIMITED
TORONTO, ONTARIO, CANADA





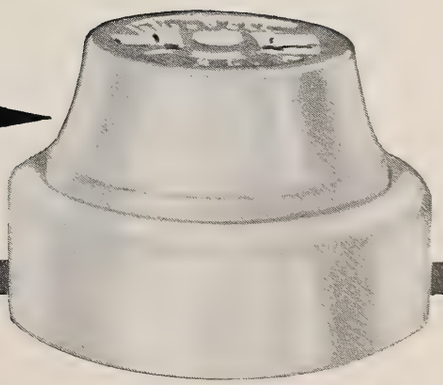
These are the phosphor bronze Contact Springs

There is no flimsy mechanism in a Hubbell Wall Receptacle. The cap blades are gripped securely by strong phosphor bronze contact springs.

Arcing, sputtering or burning, due to weak connections, are impossible, for there are no weak connections; and each spring is firmly affixed in its own porcelain chamber, so that short circuiting is prevented.

The patented T-slot admits any standard cap blade, whether it is parallel, tandem or polarized.

It is this fine care for details in plan and construction that characterizes all Hubbell Electrical Specialties. Standard Plugs, Caps, Flush Receptacles, Sockets, Lamp Guards—send for illustrated literature.



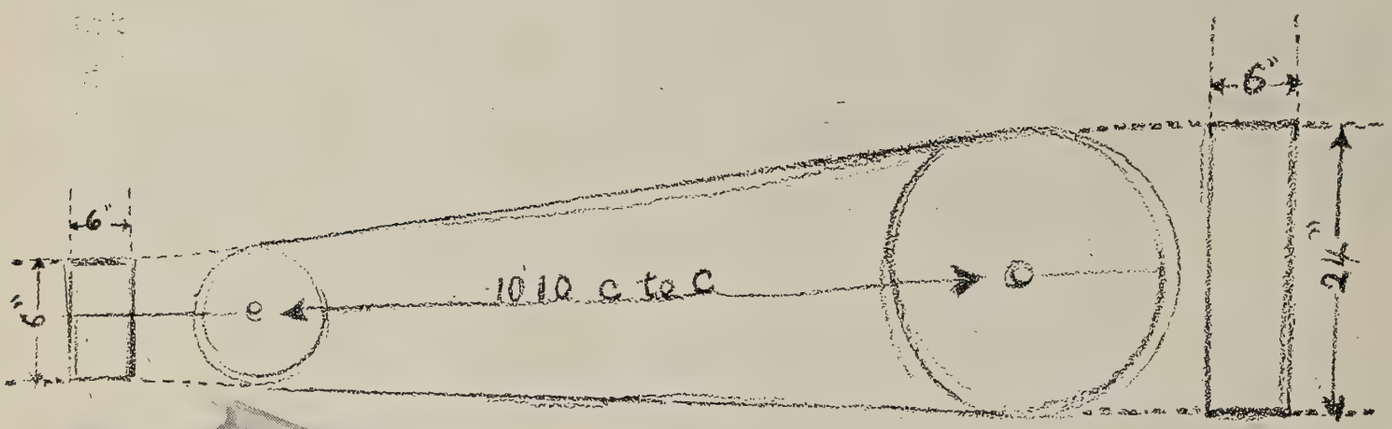
HARVEY HUBBELL COMPANY
OF CANADA LIMITED
ELECTRICAL SPECIALTIES
TORONTO CANADA

HUBBELL REG. CAN. PAT. OFF.

OUTLINE OF JORDAN PUMP

SPECIFIED
GOODYEAR EXTRA POWER
6" x 5 PLY 25'6"

PULLEY FACES 8"
R.P.M. DRIVING PULLEY 500
H.P. 10





A Goodyear Belting Man will survey your plant with no obligation to you

GOODYEAR
MADE IN CANADA

Where Belts Meet Dampness!

Goodyear Extra Power Belt Delivers Power and Lasts

Damp or wet belts usually slip more easily than dry belts.

Water and moisture form a thin film between pulley and belt.

Here "Extra Power" Belting especially displays its advantages.

Where there is water, moisture or steam—around the beaters in paper mills, for instance—Goodyear Extra Power delivers the power load just as under more favorable conditions.

Because Goodyear Belting has a rough friction surface which bites through the film of water and clings to the pulley, costly slipping is overcome.

Moisture rots belts, if it gets into them.

Goodyear Extra Power is rubber-sealed against moisture.

Not just enclosed in a rubber envelope.

The high-grade rubber in Extra Power is forced through and through the fabric, surrounding and protecting every strand, making the belt practically a solid unit.

That Goodyear Extra Power Belting is just as efficient and just as economical in damp or wet places as in other transmission uses, is proved by these satisfied users:

> The Provincial Paper Mills of Thorold got 16 months' service from Goodyear Extra Power on a Jordan Pump where they had been getting about one month's service. They also say: "In the room where our beaters are located, the air is constantly damp. Here we have found Extra Power so superior that we use it exclusively."

Some other firms who will be glad to tell you of the satisfactory service of Goodyear Extra Power under damp conditions are:

Mattagami Pulp and Paper Co.,
Smooth Rock Falls, Ont.
Port Arthur Pulp and Paper Co.,
Port Arthur, Ont.
North West Laundry Co., Winnipeg, Man.
Dominion Pulp Co., Chatham, N.B.
Bathurst Lumber Co., Bathurst, N.B.
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Issued monthly as the official publication of the Canadian Manufacturers Association (Incorporated), and devoted to the advancement of the industrial and commercial prosperity of Canada.

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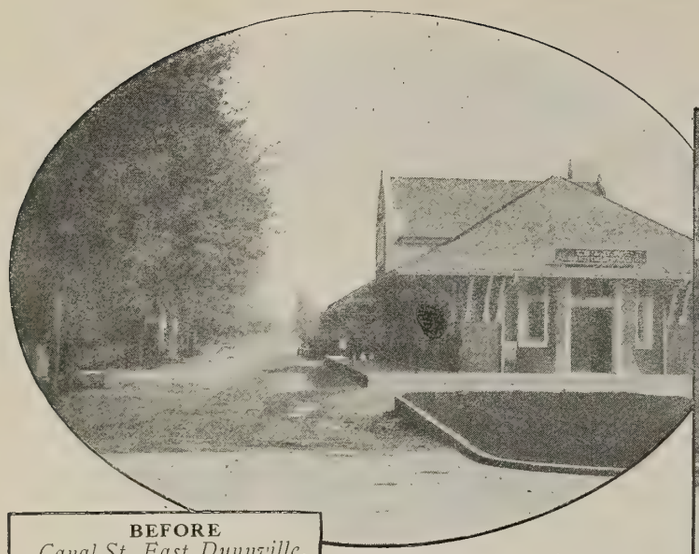
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The Canadian Manufacturers Association
INCORPORATED

Vol. XX. TORONTO, APRIL, 1920 No. 12

Editorial Comment

A Great Canadian Industry

IN point of value of output, the agricultural implement manufacturing industry is well known to rank high among the industries of Canada, and creditable indeed has been the way in which those responsible for its well-being have carried it forward to its present large dimensions. The reputation of Made-in-Canada farm implements is world-wide in extent, while at home the importance of the industry in the industrial fabric of the country is such as to deserve general recognition.

The present status of the industry is reflected in the figures recently issued by the Dominion Bureau of Statistics, applying to the year 1918. These taken in conjunction with the figures of 1910, provide some interesting comparisons. It is to be noted that in the eight-year interval, the number of plants has grown from 77 to 84, while the capital investment has grown from $45,232,098 to $74,410,603. Of this the investment in land, buildings and plant showed a growth from $9,621,256 to $13,528,395.

Oddly enough the number of employees has been nearly stationary. The 1910 figures gave 726 employees on salary and 8,834 employees on wages, a total of 9,560. In 1918 there were 865 employees on salary and 8,782 employees on wages, a total of 9,647. But the startling change has been in the amount of wages paid. In 1910 wages only amounted to $4,739,750 or $536 per head; in 1918 they had risen to $8,632,201 or $982 per head.

The cost of materials was figured at $10,477,140 in 1910 and at $17,319,840 in 1918. The value of products stood at $20,722,722 in 1910 and at $34,853,673 in 1918.

Interesting figures are given in the 1918 report as to the quantity and value of various materials entering into the manufacture of implements and as to the number and value of each kind of implement made. For instance 30,367 m.f. of lumber; 77,338 tons of steel and steel castings; 49,712 tons of pig iron and iron castings and 14,351 tons of malleable iron were required.

So far as output was concerned, 117,226 harrows were made; 70,522 plows; 37,751 mowers; 35,467 cultivators; 31,270 drills; 30,435 harvesters; 24,556 hay rakes; 11,801 hay carriers; 10,025 fanning mills, etc.

A GREAT TRIP

No member of the Canadian Manufacturers Association, who can possibly afford the time, should fail to enroll himself among those who will take in the trip to the Pacific Coast and attend the 1920 Annual Convention in Vancouver and Victoria, on June 8, 9 and 10. No more favorable opportunity for seeing the West and meeting western manufacturers under the most pleasant conditions could be imagined. It will be a trip well worth while.

Lightning Rod Installations

AMONG the contents of the current issue will be found an article by Prof. W. H. Day on the subject of lightning rods, which is published on instructions of the Insurance Committee. In this connection it may be interesting to note that a bill has been drafted by the Ontario Fire Prevention League and submitted to the Provincial Cabinet, the purpose of which would be to control the sale of lightning-arresting systems and to make the use of lightning rods on certain specified structures obligatory.

While it is uncertain what action if any will be taken by the Government with regard to this proposed legislation, it may be stated that in its tentative form the bill is decidedly drastic in character. For example, it would render it compulsory to rod all buildings 60 feet in height or over, a provision which would apply to many city structures. However serious the risk may be in the country, it is open to question whether it would be worth the cost to protect city buildings as specified. There should clearly be some differentiation in this respect.



A Famous Hostelry

This is the Empress Hotel, overlooking the beautiful harbor of Victoria, B.C. and basking in the genial sunshine and balmy air of the Pacific Coast. Here the C.M.A. will have its headquarters on June 10, when the annual banquet takes place in Victoria.

So far as the sale of apparatus for the protection of buildings from damage by lightning is concerned, the provisions are equally severe. Licenses from the Provincial Fire Marshal must be obtained and a bond of $10,000 provided. A fee of $50 is required to secure the license, while a tax of 80 cts. on every $100 received from the sale of lightning rods and equipment will be levied. Strict conditions surround the transaction of business in order to ensure that the systems installed will be efficient and the work properly executed. The general idea underlying these conditions is good but it will possibly be questioned whether equally satisfactory results might not be obtained by making the restrictions less arduous.

Farmers and Boards of Trade

THE action of the Guelph Chamber of Commerce in securing the admission of farmers to membership, reference to which was made in our last number, is by no means an isolated instance of an effort to get the business men of the farms and the business men of the cities together. A correspondent, Mr. Russell T. Kelley, President of the Hamilton Advertisers' Agency, Limited, says:

"Over two years ago the writer had the honor of organizing a Farmers, or as we call it an Agricultural Section in the Hamilton Board of Trade. We have about one hundred and thirty members. They have a luncheon one Saturday each month and the average attendance has been over one hundred. We always have a number of Hamilton business men present in addition to the farmers.

"Addresses are given on subjects of vital importance to the agriculturists, and this Department of our Board of our Board of Trade is considered to-day one of our most important. It has done a wonderful work in bringing about a better understanding between the urban and rural citizens.

"Personally, I believe that an effort should be put forth to establish similar departments in the various Boards of Trade and Chambers of Commerce in Ontario. Just four weeks ago I had the pleasure of having a part in organizing the Agricultural Section of the Stratford Chamber of Commerce."

This is fine work and should merit the commendation of all people who are desirous of seeing the best possible spirit of co-operation engendered among all sections of the community. It is desirable, as Mr. Kelley says, that other boards of trade should take similar action to that of the Hamilton, Guelph and Stratford boards.

The Claims of the Canadian Architect

EVERY reasonable effort to make the Made-in-Canada campaign thoroughly consistent should be practised by its sponsors and supporters. It should unquestionably be a well-rounded and comprehensive scheme to maintain and enlarge the business and industrial activities of the nation. Nor should it be limited to the buying and selling of commodities. It is quite as deserving of recognition in the case of the professional man, who is contributing his quota to the upbuilding of the country.

The business and professional elements come into close contact in the case of the architect. Not only does the architect create, but he also has a great deal to do with prescribing methods and materials. To urge upon him the desirability of using Canadian-made materials in the erection of buildings is important but it is equally important that the men or companies who are erecting buildings should give a preference to the Canadian architectural profession in arranging their plans. The brains of Canadians are as deserving of recognition as the products of Canadian factories, and when new construction is contemplated, the consistent course to pursue will be not only to requisition the use of Made-in-Canada materials but to insist on the employment of Canadian architects and contractors as well.

Workmen's Compensation in British Columbia

IT is apparent from a perusal of the 1919 report of the Workmen's Compensation Board of British Columbia that the Board has finished a third successful year. It is a noticeable feature that the administration of the Act is appreciated by all parties concerned; the employer, inasmuch as he is no longer bothered by litigation that was so common in the olden days; the workman because he quickly receives his compensation without dispute; the medical man, because his bills are paid promptly; and the

hospitals, because accounts incurred in connection with hospital treatment of workmen are promptly paid.

The first aid regulations, which were brought into effect some two years ago, have proved particularly efficient, inasmuch as a very large number of minor injuries receive first aid treatment, and the result is that the consequences from lack of attention and failure to obtain medical treatment, are no longer serious.

Compared with 1918 the 1919 industrial activities of the province show that 500 new employers are now engaged in industries covered by the Act that were not in operation before. Over 110,000 workmen are covered, and the 1919 payrolls of the industries covered by the Act amounted to approximately $130,000,000.

The rates charged by the Board are considerably less than were charged industries heretofore. This is only possible by reason of the Act providing for the administration of the accident fund by a board appointed for that purpose and to the exclusion of all intermediaries. Notwithstanding the increased volume of business, the charge to employers was only 4.781 per cent. of the amount collected from them, being slightly less than the ratio of expense during either of the previous two years. Of every $100 collected from the employer, $95.21 goes direct to the workmen or their dependends without any expense whatever to them.

By a 1919 amendment to the Act, the pensions paid to dependents residing in foreign countries were revised according to the cost of living in those countries as compared with the cost of living in Canada. The surplus so obtained by such amendment was divided among the dependents of deceased workmen residing in Canada. This meant a total payment to the dependents in Canada of $65,870.51, with the result that after the first six months' operation of the Act, all widows have been receiving $35 per month and each child $7.50 per month.

During 1919 a total of 18,185 claims were made upon the Board. Of this number 17,908 were non-fatal claims, and 277 were fatal. Of the 277 fatal claims made, 93 were in respect of accidents happening during 1918, leaving 184 men fatally injured during 1919. This represents the lowest number of fatal accidents during any of the past years. The Board points out that in comparison with previous years, it is noticeable that the percentage of accidents to the number of workmen covered is considerably lower not only in number but in extent of severity and time loss.

During the past three years there has been paid out in compensation, pensions, and reserves, $4,209,468.94. There has been paid out for medical aid, hospital and nursing, $620,761.46; making a total paid out for compensation, pensions, reserves, medical aid, etc., of $4,830,-











Little Glimpses on a Famous Route

From Edmonton to Vancouver, the C.M.A. Excursion Party will travel via the Canadian National Railway. Along this route through the Yellowhead Pass and down the North Thompson and Frozen River Valleys there is some grand scenery, snatches of which are shown in the illustrations above.

230.40. During 1919 there was paid in compensation, pensions and reserves $1,391,993.35. The amount paid for medical aid, hospitals, and nursing was $289,108.39 or a total for the year of $1,681,101.74.

The Delusion of the Class War

THE Moose Jaw *News,* in referring to the recent discussion by the British Columbia Federation of Labor of a resolution in favor of a Soviet Government, quotes most appositely an article by Robert Blatchford, the well-known English socialist, entitled "Tosh About the Class War." It takes such a commonsense view of the situation and so completely exposes the delusion that classes can be obliterated, that we are tempted to repeat the *News'* condensation of its argument.

"I think it is time somebody who understands Socialism and the British people," he says, "said a few words of cool commonsense about that weird chimera—class war. The idea behind the class war, as exploited by the blood and thunder apostles of 'direct action' is that the 'working class' or 'Labor' is robbed and repressed by the upper and middle classes, and that the only hope of the working class, or Labor, lies in overcoming the upper and middle classes by force and then robbing and repressing them in turn." But, he asks, where do we all stand? Who are we to fight? To these questions he replies that "it is the habit of the 'direct action' blowhards to speak of the classes as though the whole nation were rigidly divided into three castes, as the Army is divided into officers, non-commissioned officers and privates. If that were so, the meaning of the class war would be clear. It would mean that the privates wanted to be officers and non-commissioned officers, and reduce the present officers and N.C.O.'s to the ranks. . . . It may be useful to point out that all the privates could not become officers or even sergeants, and that to change the individuals of the classes is not to abolish the class system. Or, if such be the idea, to abolish all ranks in the Army, would be to abolish the Army." What is a working man? he then asks. "A working man is a man who works." Therefore, he contends, "editors, doctors, bank clerks, engineers, managers and salesmen, captains of the mercantile marine, designers, artists, musicians, are all working men. Then upon what grounds of logic do the mechanics and labourers claim to be the working class and to exclude other working men and denounce them as enemies in the class war?"

From this he draws the following very straight deduction. "Now what does the inflammatory orator mean us to understand when he talks about the 'workers' or the 'working man' or 'Labor?' He wants to impress us with the idea of some thirty millions of manual workers, all users of tools, all 'wage slaves,' and all united in their interest and desire against the classes. This imaginary army of emancipation does not exist. I do not believe it ever will exist in our country. This hypothetical 'class' sometimes spoken of as the proletariat, is not a coherent class at all. It is a mass of people divided into classes and sects more arbitrarily than the nation's division into three classes. 'Labor'! There are male and female labor. Are these at one? Do not the engineers love to be called the 'aristocracy of labor?' Do the best-paid and most highly skilled crafts believe that the mere laborers should equal them in rank and wages? If the skilled worker is exploited by the employer, then the laborer is exploited by the skilled worker. If the whole 'proletariat' are justified in 'direct action' against the 'classes,' the laborers would be justified in 'direct action' against the skilled workmen. The women would be justified in 'direct action' against the men."

Why, he says, even the "Soviets have bosses." "Suppose the 'proletariat' hanged or deposed, the whole of the upper and middle classes and decided to run the country by soviets, there would arise the question of the composition of these soviets. There would have to be directors, and managers and foremen. Would the very best men surely get those jobs? Would they be better than the men displaced? Would there be no danger of the directors, managers and foremen solidifying into classes? I should be very reluctant to live in England under the rule of soviets. If the soviets were to be controlled by the garrulous, malignant bounders who are at present shouting for soviet government, I would very much prefer to be decorously hanged. And I am a democrat, and a Socialist, and a working man, and don't you forget it."

Bull shit buddy!

A Reduced Fire Waste

STATISTICS recently issued by the Fire Marshal of Ontario indicate a really remarkable reduction in the fire loss of the Province for 1919. While the number of fires was not markedly less, the wastage in dollars and cents showed the very decided decrease of $6,182,762 or 40 per cent. For all Canada, the reduction in fire waste was 27 per cent. and for the whole of North America, 15 per cent., which gives to the Ontario figures all the greater significance.

Analyzing the figures, it is to be noted that, while the reduced loss in Ontario applied to practically all classes of risks, the bulk of the saving occurred under the heading of factories, and manufacturing and special hazards. Here there was a reduction of approximately five million dollars or 85 per cent. of the total. Various reasons will doubtless occur to account for this improvement. The cessation of the manufacture of munitions was undoubtedly one potent factor. So also would be the mild weather conditions of the winter of 1918-1919, which lessened the risk from over-heated pipes. Apart from these considerations, however, credit must unquestionably be given to the progress of the educational movement. More care is being taken. Protective measures are more adequate and the fact that replacement values have increased enormously has had its influence on the situation. In short, a real gain has been registered, which should give encouragement to the forces battling against the appalling fire waste of the country.

A WORD of appreciation of the services so zealously performed by the Ontario Safety League in its campaign of educational effort is well deserved. A glance over the brief synopsis of work done in 1919 is sufficient to show how widespread is the propaganda being conducted by this organization. Cards, letters, bulletins, seals, pay envelope slips, by the hundreds of thousands, have been distributed and, while much of the material has doubtless fallen on barren ground, yet enough must have taken root to produce worthwhile results. The careless and indifferent are always with us, but the persistent preaching of the Safety League will in time have its effect and manufacturers may well wish more power to its arm.

News and Views of the Association

There will be found each month in this department a record of the various activities of the Canadian Manufacturers Association during the preceding month. The information is supplied to INDUSTRIAL CANADA officially, and all members of the Association are urged to acquire the habit of reading and checking over the contents of the department carefully in order to keep themselves posted on the work of the Association

Will Require Several Special Trains

THERE is every likelihood that it will require several special trains to handle the Association's Excursion to the Pacific Coast in June. At time of writing, reservations for the first train out of Toronto on May 29th have been practically completed. That there will be a second train from Toronto is pretty well assured, while a complete train will probably be necessary to accommodate Quebec and Maritime members, leaving Montreal. The success of the Excursion, as well as of the Annual Meeting, is well assured and those members who have still to make a decision about going are urged to do so at once. This will ensure accommodation and be of assistance to the management.

Executive Council Meeting

The March meeting of the Executive Council took place at the Windsor Hotel, Montreal on March 25, following a luncheon held under the auspices of the Quebec Division. The president, Mr. T. P. Howard, was in the chair and there was a good attendance of members. Business of much importance was transacted, including the reception of reports from the various standing committees. The Council went on record as in favor of daylight saving.

The April meeting of Council will be held in Toronto on the usual date, the fourth Thursday of the month.

Membership Continues to Grow

The membership drive inaugurated last December continues to pile up encouraging totals. Between December 1 and March 31, 545 new members have been added to the roll, bringing the total membership of the Association up to approximately 4,100. The new members are divided among the five divisions as follows: Ontario, 205; Quebec, 180; Maritime, 77; Prairie, 42; Pacific, 41.

Edmonton Branch Annual

The Edmonton Branch of the Association held its annual meeting on March 10, G. W. Hall, manager of the Edmonton City Dairy, was elected chairman; C. G. Robson, president of W. H. Clark Co., honorary secretary, with the following executive committee: Harvey Shaw, North-West Biscuit Co.; C. A. Graham, Great Western Garment Co.; J. T. Molitor, Swift-Canadian Co.; J. A. Bullman, Alsip Brick Co.; C. G. Sheldon, Humberstone Coal Co., Limited. From this it will be seen that the Edmonton Branch has been fully resurrected and is now firmly established.

Ontario Division Annual Meeting

A circular has gone out announcing that the annual meeting of the Ontario Division will be held at the King Edward Hotel, Toronto, on Thursday, April 29. Proceedings will commence with a luncheon at 12.30 p.m., after which business will be transacted, continuing until disposed of. Reports of officers and committees will be presented and officers for the coming year elected. Nominations will be received up to April 17th, at 3 p.m. As important matters will come up for consideration, a large attendance of members is desired.

Toronto Branch Annual Meeting

The annual meeting of the Toronto branch is scheduled to take place on April 29, immediately following the annual meeting of the Ontario Division. It will probably start about 4 p.m. Dinner will be served at 6 p.m., after which business will be resumed and continued until disposed of. As in the case of the Ontario Division, the usual reports will be presented, officers elected, etc.

National Fire Protection Association

Announcement is made that the twenty-fourth annual meeting of the National Fire Protection Association, which met last year in Ottawa, will be held in the Auditorium, Insurance Exchange, Chicago, on May 4, 5 and 6. Members who intend attending the convention, are being urged to make their hotel reservations as early as possible.

Canadian Trade Index

The Commercial Intelligence Department are directing the attention of members to the early appearance of the 1920 edition of the *Canadian Trade Index*. A circular states that "This is the outstanding publication of its kind in Canada, that it is compiled, published and owned by your Association, and is the only publication of its kind that is in any way authorized or endorsed by your Association.

"Its national character and scope are recognized by the Dominion Government, whose departments and overseas representatives will be fully supplied with it for purchasing and publicity purposes.

"This issue will also be carefully distributed to all large buyers of goods throughout Canada, and copies will be placed for reference purposes in all localities.

"Special pains are being taken to ensure a thorough and adequate circulation in all countries where Canadian manufacturers are doing business or may hope to do business.

"All this circulation is backed up by an information service such as no other organization in this country has facilities for rendering.

"This is your own proposition. It has been backed up well by your advertising support. We believe our efforts in achieving a thoroughly representative domestic and exports circulation will warrant a continuance of that support in the event of the publication of the *Index* annually, which is now under consideration."

Industrial Alcohol

A deputation consisting of Messrs. T. H. Wardleworth, of the National Drug & Chemical Co., Montreal; T. F. Monypenny, Imperial Varnish & Color Co., Ltd., Toronto; Mr. Haldane, Sherwin-Williams Co., Ltd., Montreal; G. M. Edwards, Canadian Paint, Oil & Varnish Association; Messrs. Hickman & McLaren, Ottawa Paint Works; W. A. Oliver, of J. Oliver & Sons, Ltd., Ottawa; J. F. Edgar, Synthetic Drug Co., Ltd., Toronto; J. E. Walsh, E. Blake Robertson and J. M. McIntosh, of the Canadian Manufacturers Association, waited upon the Hon. The Minister of Customs and Inland Revenue and the Hon. The Minister of Finance on Friday the 26th March, and urged the enactment of legislation which will provide for the manufacture and sale of industrial alcohol for manufacturing purposes. There is now an alarming shortage of methylated spirits, and the output of many manufacturers is seriously handicapped. The enactment of the legislation proposed will place Canada on a level with British and American competitors.

Death of F. R. Allward

Members of the Association, who read with interest the series of articles on the handling of freight claims, which appeared in recent issues of INDUSTRIAL CANADA, will be sorry to learn of the death of their author, Mr. F. R. Allward, Chief Clerk of the Transportation Department. Mr. Allward was one of the most conscientious and painstaking officials of the Association, who brought to his work a zeal and thoroughness that were above praise. He was a young man, who devoted his leisure hours assiduously to self-education and was steadily and earnestly making himself a master of transportation problems through the medium of correspondence courses. Starting in the service of the Grand Trunk Railway, he became later traffic officer of the Quaker Oats Company in Saskatoon. He enlisted for military service, but through exposure at Camp Borden, contracted an illness which prevented his going overseas. In fact, it was through the debility occasioned by this experience, that his constitution was unable to resist the attack of the flu to which he succumbed on March 19th last. His death is a distinct loss to the Transportation Department and through it to the Association in general.

Chocolate Manufacturers in the West

A party consisting of Mr. H. P. Cowan, Cowan Co., Ltd.; R. P. Smith, Wm. Neilson, Ltd.; E. A. Chidley, Willard's Chocolates, Ltd.; Alex. Norman, Rockland Chocolate Co.; George W. Robertson, Robertson Bros., Ltd.; and C. J. Bodley, Secretary, Confectionery, Biscuit and Chocolate Industries of Canada, have recently returned from an extended tour of Western Canada. The itinerary included Winnipeg, Brandon, Regina, Moose Jaw, Saskatoon, Edmonton, Calgary, Vancouver and Victoria. At each of these cities meetings were held, the purpose of which was to assist the confectionery jobbers' associations of the various districts to a fuller realization of their objects. Price-cutting and many unfair methods of competition have tended, in the past, to make much dissatisfaction. The chocolate bar manufacturers, represented by the above men, were able to assure the Western dealers of their co-operation on all contentious matters.

One great benefit that will grow out of such meetings is a better understanding between the East and West—(so called.) The various cities seemed to vie with each other in the warmth of their welcome to the manufacturers, and many expressions of satisfaction were expressed that the delegation had come to visit them, and to study the problems confronting the western distribution.

Addresses were delivered by the Secretary, Mr. Bodley, at every meeting, in which loyalty to Canadian industry was made the key note. An appeal was made for a better appreciation of the work being done by the Canadian manufacturer in the development of the country. The importance of our Imperial connection was emphasized, and it was urged that trade be kept within the Empire.

Exhibitions in Prairie Provinces

The Trade Sections Department are directing special attention to the opportunity afforded by the exhibitions in western cities for bringing Made-in-Canada goods to the attention of the people of the Prairie Provinces. The dates for this year's exhibitions are as follows:—

Calgary - - -	June 28th to July 3rd.
Edmonton - - -	July 5th to July 10th.
Saskatoon - -	July 12th to July 17th,
Brandon - -	July 19th to July 24th.
Regina - - -	July 26th to July 31st.

These exhibitions comprise what are known in the West as "A Circuit," and might be described as the annual outings of the Western people. They are widely advertised and attended by hundreds of thousands of spectators, but as opportunities for showing goods that are made in Canada, they are sadly neglected.

On the contrary, however, reports which we have received indicate that American manufacturers are very quick to take advantage of these Fairs as means of developing their sales in the Prairie Provinces. At least fifty per cent. of the goods shown are said to be of American origin and in one instance last year foreign competitors occupied ninety per cent. of the space.

In view of the keen demand for the products of Canadian manufacture fostered throughout the country by public institutions, boards of trade, commercial and social organizations, coupled with the necessity for an equalization of trade as between Canada and the United States, it is incumbent upon Canadian manufacturers to place their goods prominently in the lime-light, and we therefore submit that the anomalous situation in connection with these important exhibitions where goods of American origin predominate should be corrected.

Made in Canada

A conference of the Toronto Branch Executive with representatives of the Ontario Association of Architects was held on March 11, when it was decided to intensify the "Made-in-Canada" campaign, which the Association has carried on for some years. The Association desires to co-operate with organizations of engineers and architects with a view to encourage them to specify Canadian material, whenever possible in Canadian contracts.

With the issue of the new *Trade Index*, it is now convenient to prepare lists of articles not "Made-in-Canada" to determine the making of selections, when contracts are let. A special committee has been appointed, consisting of four

representatives of the Ontario Association of Architects, together with an equal number of manufacturers to work out definite plans.

Renewed Scholarship

The Toronto Branch Executive have agreed to renew the scholarship of $50, which has been contributed by the Committee for the past six years to the Ontario College of Art.

Peterborough Branch Inaugurated

A special meeting of the manufacturers of Peterborough was held in the Princess Hotel, Peterborough, on Monday, March 29th, to formally inaugurate the Peterborough Branch of the C.M.A. Mr. W. R. Breyfogle, chairman of the branch, presided, and Messrs. J. E. Walsh, general manager, and H. Macdonald, secretary of the Ontario Division, were guests of the branch. The chairman reported that the City of Peterborough had been able, without difficulty, to reach 100 per cent. membership of the local manufacturers in the branch, and explained the advantages of membership in the national Association.

Mr. Walsh made a detailed statement, explaining the introduction of the divisional organization and of the services of the Head Office departments. The departments were officered by experts, such as individual manufacturers could not retain including Transportation, Tariff, Insurance, Legal, Trade Sections and Publicity. He stated that the present membership in Ontario was 2,139—in Toronto 929, and in Peterborough 35.

Mr. Macdonald explained the work of the branch as being two-fold. They had their domestic problems, covering such questions as Industrial progress, "Safety" and Technical education. The larger questions received consideration through the committees of the Division and finally, in the Executive Council. He invited the branch to consider its problems from a provincial standpoint rather than in their purely local aspect. The questions of workmen's compensation and of taxation had a special interest for Ontario manufacturers, and the Legal Department was well equipped to advise on all such questions, as well as on the various problems of commercial law that presented themselves.

The secretary of the branch is Mr. J. J. Turner, who has had the assistance of Mr. Leonard Fraser, secretary of the Board of Trade.

Freight Rates for Maritime Provinces

By G. P. Ruickbie

Transportation Department, C.M.A.

Acting on instructions from the General Manager I left Toronto on March 2nd, for a visit to the Maritime Provinces, in order to investigate complaints from members in that section of unfair freight rate adjustments to points in Ontario and the Northwest, caused principally by the percentage increases which have taken place during the war.

Mr. H. R. Thompson, Secretary of our Maritime Division, met me in Fredericton, N.B., on March 4th, and we subsequently visited St. John, Halifax, Sydney, North Sydney, New Glasgow, Amherst, Moncton and Bathurst. Prior to this Mr. Thompson had sent out notices to all our Maritime members, advising them of our itinerary, and inviting any who had transportation problems they wished to discuss, to make an appointment with us, or, if this were not practicable, to submit their views in writing to him at Amherst.

At each place we visited we met various manufacturers and other interests. Transportation matters in general were fully discussed, and the consensus of opinion was that the ever-widening spread between rates from the Maritime Provinces and rates from Montreal to points in Ontario and the Northwest, caused by increases being made on a straight percentage basis, was working a real hardship on Maritime industries, particularly those who must look to other provinces to market a portion of their output. Some lines of industries are more adversely affected than others, due to the nature of the articles they manufacture and the fact that their raw materials have to be transported from far distant localities,

It was considered advisable to get further detailed information as to how each line of industry is affected, and with this end in view a questionnaire is being sent to all members, which will give those who have not already done so, an opportunity of setting forth fully the difficulties under which they are operating.

Activities of the Quebec Division

By R. W. Gould

Secretary Quebec Division, C.M.A.

The Quebec Division held a "mission" in the City of Quebec last month. We secured thirty new converts, who are members of the Canadian Manufacturers' Association for the first time in their lives. A luncheon was held at the Chateau Frontenac on March 4th, at which there were present about 75 members and guests. Louis Letourneau, M.P.P., the chairman of the Quebec branch, acted as chairman. The Provincial Government was represented by Hon. L. A. Taschereau, the Attorney-General, and now acting Prime Minister, who addressed the Association at some length, dwelling in an optimistic vein upon the possibilities of Canada in general and the Province of Quebec in particular.

Other speakers were His Worship, Mayor Samson, of Quebec, who is an enthusiastic member of the Association; Colonel W. J. Sadler, chairman of the Montreal branch of the Association, and Hon Frank Carrell, M.L.C., of Quebec. Mayor Hayes, of St. John, N.B., one of our eastern members, happened to be in Quebec, and also made a short address, as did also J. E. Walsh, the general manager of the Association Your secretary had splendid support from the members of the Montreal branch in the effort, and some ten or fifteen went to Quebec to attend the meeting. Among them were J. H. Sherrard, A. H. Brittain, W. J. Sadler, P. E. Joubert, W. S. Fallis, J. E. Riley, and others.

Following the luncheon a meeting of the Quebec branch was held in the round cafe. There was present at this meeting George D. McKinnon, of Sherbrooke, and Robert Ryan, of Three Rivers. The question of a renewal of interest in the Quebec branch was discussed, and the business profits war tax came in for a considerable amount of discussion.

It was decided that so far as the provincial division was concerned that hereafter four meetings a year would be held in Montreal, four in the City of Quebec, one in Three Rivers, and one in Sherbrooke. The Sherbrooke meeting will be held, it is hoped, during the month of May, and the Three Rivers meeting in the month of September this year. A movement is now on foot to form a new branch in Three Rivers, which, during the past two years has become one of the most important manufacturing centres in eastern Canada. There is enthusiasm galore in Three Rivers.

Following the effort in Quebec on March 4th, your secretary called a meeting of the Quebec branch on March 16th. The meeting was held in the L'Union Commercial Building. It was decided at this meeting to hold a monthly meeting of the branch hereafter. This programme has been rather lax during the past two years, and the new decision is part of the programme to engender a new interest in the branch

in the City of Quebec. The meeting of the Quebec branch will be held on the 20th of April. The field is white unto harvest in Quebec, and the Association hopes to have a real progressive report to present at the annual meeting on the coast so far as the Quebec branch is concerned.

The meeting of the Executive Council of the General Association was held in the Windsor hotel on the 25th, and was well attended. Montreal has not had the honor of a meeting of the Dominion Council for some time owing to the smallpox epidemic, but happily this has subsided, and we are again able to mingle one with the other. J. A. Woodward, president of the Canadian Railway Brotherhood, addressed the divisional luncheon at this time, taking as his subject, "Service as the Social Law," and it was much enjoyed by those present. It was something of an innovation for a labor man to address the Manufacturers' Association in Montreal, and one which was enjoyed equally by labor and the manufacturers.

A large number of our members are intent upon attending the annual convention of the Association on the coast, and are making their plans for the trip. It is the intention of the division to carry on a more intensive programme of organization during the summer months in the Province of Quebec than has been the case hitherto.

Alberta—B.C. Industrial Congress

Outline of Arrangements

All arrangements have been completed for the Alberta-British Columbia Industrial Congress, and the tour of Western Canada by a large body of representative industrial and financial men from Canada, Great Britain and the United States, which takes place from June 2nd to 10th, and coincides with the itinerary of the Canadian Manufacturers Association on their way to their annual meeting in Vancouver. The Congress is this year being managed from the office of the Alberta Industrial Development Association in Calgary, and Brigadier-General F. H. McDonald, C.M.G., D.S.O., general manager of this organization, is handling the details of the big gathering. He recently returned to Calgary from Vancouver, where the details of the British Columbia end of the trip were arranged.

The Industrial Congress tour commences at Medicine Hat on June 2nd, and synchronizes with the itinerary of the C.M.A. specials in visiting Lethbridge, Calgary, Edmonton and then on to the Coast cities. At Edmonton the main sessions of the Congress will be held, and the delegates will have the opportunity of listening to addresses on Western Canada by practical men of great experience, who are thoroughly familiar with this part of Canada.

The Congress Executive look forward this year to having a particularly strong British representation, and are in touch with the National Manufacturers Association of Great Britain, with the idea of organizing a British party to attend the sessions in June. Those in charge of the Congress are confident that it will be a great success and surpass that of last year in every respect.

Canadian Industries Exhibition

Instructions re Shipments

Instructions as to the best method to ship material to the Canadian Industries Exhibition, London, are contained in a bulletin just issued by Mr. O. C. Pease, the Canadian representative of the exhibition. These apply to all exhibitors who have not already made private arrangements and who wish to take advantage of the system of bulk shipments. The material is to be handled by the shipping firm of Morison, Pollexfen & Blair of Canada, Limited, of whom Mr. Pease says:—

"The company of Morison, Pollexfen & Blair has been chosen by the Canadian Manufacturers Association and the Exhibition Management to take care of all shipments placed in their charge by intending exhibitors. The Morison Company is one of the best of the English forwarding houses, has been established in the United Kingdom for over 60 years, and is thoroughly well represented in Canada.

"In brief, the Morison Company will collect all material and assemble at the port of Montreal. The company will then re-mark all packages and crates, and arrange for the shipment of all material in one consignment. This one consignment will be shipped to the Morison Company at the Royal Agricultural Hall, Islington, London, Eng. The goods will arrive at the point of destination on or about the 24th of May. For the information of shippers who are handling their own consignments, I may say that the hall will be open to receive shipments on and after May 20th.

"Your company's representative in England will thus be able to proceed direct to the representative of Morison, Pollexfen & Blair at the hall, and on payment of all shipping charges and transportation costs, etc., will be able to obtain a release of your exhibition material and proceed at once upon the arrangement of your space contracted for.

"Exhibitors who intend to place their shipments in 'bulk' consignment must advise M. P. & B. just as quickly as possible, so that the latter may make full arrangements regarding ocean space. A knowledge of the weights, measurements, etc., of shipments is of course absolutely necessary.

"The Morison Company of Montreal and Toronto offers every facility they have to inexperienced shippers, and I suggest to the latter that they utilize the services of the forwarding agents to the fullest possible extent."

Mr. Pease's circular gives details as to crating and marking invoices, charges, etc.

Activities of the Prairie Division

By G. E. Carpenter

Secretary Prairie Division, C.M.A.

At the recent session of the Manitoba Legislature the Provincial Government appointed a joint committee consisting of ten members of the Legislature, five representatives of organized labor, and five representatives of the employers in the province, to deal with labor's requests for provincial legislation, the two chief items being a demand for 100 per cent. compensation and a compulsory collective bargaining law.

The Joint Committee acquiesced in the employers' request that actuarial experts be employed to advise upon labor's request for a state fund for workmen's compensation insurance. These experts have visited Winnipeg, and reported that state insurance is feasible in Manitoba. They have recommended that compensation to injured workmen be increased from 55 per cent. to 66 2-3 per cent. of wages; that the waiting period be reduced from six to three days; that pensions to widows and children be increased from $20 and $5 respectively to $30 and $7.50 respectively; and that funeral expenses be increased from $75 to $100. They reported that, with the elimination of agents' commissions Government taxes and other overheads, which they term "waste," which are paid under the present scheme of private insurance, the increased benefits referred to could be paid under a state plan without increasing premiums at present being paid by employers. They have made it plain in their report that these benefits go as far as labor can ever expect; that they represent the proper balance between the workers and employers, and should be accepted by labor as final. While labor repre-

sentatives on the Joint Committee were asking for 100 per cent. compensation, they have agreed to the report, and employers' representatives have acquiesced in its main points, which are outlined above. A bill was introduced embodying these provisions.

On the vexed question of collective bargaining, labor and employer representatives on the Joint Committee could not get together. Labor started out by requesting enactment of a law providing for the interpretation placed upon collective bargaining by the Strike Committee at the time of the Winnipeg general strike, which the representatives of the running trades on the railways and the Minister of Labor all held to be incorrect, so there was very little likelihood of the parties getting together. Numerous meetings were held in an endeavor to reach some common ground, but without avail. Labor's representatives ultimately withdrew from the meetings. The ten members of the Legislature were expected to make a report before the close of the session, but at the time of writing had not yet done so.

Electricians' License Act.

When the Electricians' License Bill was passed three years ago, providing that all electrical work in Manitoba should be performed by journeymen electricians holding a license under the Act, this branch arranged that exception be made to cover repairs to plant equipment and clause No. 14 was added to the bill, providing that this work could be done by the chief engineer of the plant. Every session since that time an amendment has been introduced seeking to cancel this clause. In the amendment of the Act this year cancellation of clause 14 was provided for. The branch secured the co-operation of the Manitoba Employers' Association, the Winnipeg Board of Trade, and the Engineer's Organization, and appeared before the Law Amendments Committee, with the result that clause 14 was allowed to remain in the Act, the statement being made by the Attorney-General that no reference should have been made to it in the amendment.

Temperance Act Amendment.

An amendment was introduced at this session providing for the purchase of alcohol for manufacturing purposes from or through a Government vendor in quantities not exceeding 10 gallons at one time, and restricting the size of the package in which the manufactured product containing alcohol could be marketed. A committee from the branch waited upon the Law Amendments Committee and pointed out that when a similar practice has been invoked in another province, manufacturers had to pay 50 per cent. more for their alcohol than it could be obtained from the distillers. Strong objection was, therefore, taken to purchasing from or through a Government vendor, although the committee expressed its willingness to assist the chief inspector, administering the Temperance Act, to keep a proper record and check of all alcohol used for manufacturing purposes. It was also shown that the quantity of 10 gallons was insufficient and impracticable; that the alcohol was usually purchased from distillers in bond; that the inspector of the inland revenue department would only release an original package at one time, and that the alcohol was actually mixed with other ingredients under the supervision of the inland revenue inspector. In fact in some cases the duty was paid on the product which was manufactured under his supervision. At the suggestion of the Attorney-General a conference was arranged with the chief inspector of the Temperance Act, and an amendment was redrafted to enable manufacturers to import any quantity of alcohol for manufacturing purposes in bond, and secure a permit from the chief inspector to store while being used in manufacturing. Restrictions as to the size of the bottles in which toilet articles and flavoring extracts could be put up, namely, 2½ ounces, were also cancelled.

Legislation, Saskatchewan.

The Saskatchewan Legislature, at its recent session, passed an Act to create a Bureau of Labor and Industries to gather information and publish statistics regarding employment, hours, labor difficulties, labor organizations, relations between capital and labor, conditions of employment, resources of Saskatchewan and industrial development. The Bureau will open and maintain employment agencies and administer the Factories Act, the Building Trades Act, the Electrical Workers Act, Employment Agents Act, the Mines Act, and the Minimum Wage Act of the Province.

An amendment was passed to the Factories Act limiting the hours of employment for youths, young girls, and women in factories to 48 hours per week, and authorizing the Lieut.-Governor in Council to make regulations for the construction and operation of elevators, hoists and dumb waiters. The amendment also provides that any person under 16 years of age shall not operate an elevator for the carriage of passengers.

Accident Prevention.

Mr. E. McGrath, Secretary of the Bureau of Labor, submitted by letter to a general meeting of Manitoba members particulars of a plan to facilitate accident prevention in plants by forming ambulance classes to whom Mr. Ward, superintendent of St. John's Ambulance Society, will give instructions. In addition to this the Bureau of Labor will furnish Safety First bulletins to employers, and request that these be kept posted in a conspicuous place in the factory, as it has been found that these have a great educative value with workmen. The meeting endorsed the proposed movement, and when Mr. McGrath takes the matter up with the members they are requested to give it their active and cordial support.

Steam Boiler Act, Manitoba.

The Steam Boiler Act of Manitoba provides that where fires are maintained in boilers overnight a third-class engineer must be employed where the capacity of the boiler is over 20 lbs. pressure. A committee from the branch, appointed at a general meeting of members, interviewed Mr. McNamara, chief inspector. He stated that the examination for the third-class engineer was very simple, and advised manufacturers to have their employees take the examination. He recommended a study of the first two chapters of Odell's Engineering Treatise, stating that it was very simple, and that anybody of average intelligence could readily pass the examination after reading these two chapters. He stated that where any firm had employed a night watchman for some time, and through illiteracy or lack of knowledge of the English language it might be impossible for him to pass a written examination, if the firm would write Mr. McNamara explaining these circumstances an oral examination would be arranged. The committee reported accordingly at a general meeting of members, and it was decided to adopt these suggestions.

Increased demand for fire protection has rendered larger factory accommodation necessary for the American La France Fire Engine Co. of Canada, Limited, Toronto, and an addition is under construction. This is 60 x 100 feet and will cost $35,000. Twenty additional hands will be needed.

The Situation at Ottawa Reviewed

Position of the Three Parties at the Close of the First Portion of the 1920 Session—Permanent Organization of the Unionist Party—Measures that have been Introduced to Date and Probable Action Thereon.

By Industrial Canada's Parliamentary Correspondent

OTTAWA,—Twenty-four sittings of Parliament were held before adjournment for Easter holidays, and they were sufficient to demonstrate that neither of the three parties seriously want an election. It is true that the Opposition leader, the Hon. Mackenzie King, declared, by resolution, that there should be an immediate appeal to the people, and the Liberal Opposition as well as the Agrarian third party voted for it. But the attitude of these groups since, makes the declaration appear like a party formality rather than a fighting declaration. There has been much business since the session opened, but no real hostility. It seems clear that, at the earliest, there will be no general election until 1922.

Members of the group of twelve, who constituted themselves the Agrarian third party, under the leadership of Hon. Mr. Crerar, fear that they have made a mistake in formally forming themselves into a Parliamentary group. They find that group action involves more responsibility and gives less liberty of action than individual independent membership. Most of the membership of the group are from the west and their decision to vote for an election has resulted in protests from Western constituents. The organized farmers of the West have intimated to their representatives that they made a serious mistake in voting for a general appeal to the people. It would not be surprising to see Parliament, in the near future, reduced to two formal parties with a sprinkling of independent individuals having the liberty to cast their votes with either side.

A Permanent Unionist Party

The organization of a Unionist party, with all the ramifications needed for a campaign, will be undertaken at the close of the session. It is recognized that something of this kind is essential before an election. The 1917 election was run by the Government largely with the old Conservative organization. Since that time this organization has been disappearing, so there has to be a survey of conditions in constituencies and the organization of willing workers into committees under the direction of experienced chairmen so that the vote may be brought out when the time comes. Sir Thomas White asked a Government caucus to begin the organization of a "National Liberal-Conservative party," but was met with a letter from Sir Robert Borden asking that there should be nothing done in this direction until his return, when he undertook to gather the Government supporters for a decision as to a permanent party and its policy. Reports from Sir Robert Borden indicate that his health has largely returned. He will be back in Parliament in the not distant future and it may be found that his health has so improved that he will be able to take his old place at the head of Canadian affairs.

There has been introduced the franchise measure needed for the holding of an election. It extends to alien-born Canadians more generous voting powers than had been expected by many supporters of the Government. The measure was supported by the Opposition leader and, when criticized by some of his supporters, the Government undertook to meet the new demands and still further extend its generosity to the alien-born citizens. It has been suggested that the Senate might exercise its authority and curtail the voting power of the alien-born, but this is not considered likely, as the franchise and all matters connected with voting are considered peculiarly within the province of the Commons.

A Disposition towards Economy

Main estimates for the year show a strong disposition toward economy on the part of the Government. Even by the exercise of economy and the elimination of money provisions for many works, such as the Hudson Bay Railway, the Government will have to find more than five hundred millions during the year. The revenue from all forms of taxation will not go much beyond three hundred millions. The most hopeful estimate, before the budget, is for three hundred and seventy-five millions. However, there is a handsome balance from the last loan, for which subscriptions totalled seven hundred millions, and this balance will cover the gap between revenue and expenditure. It will also make it unnecessary for the Government to ask the country for another loan this year.

Not only were the subscriptions to the last loan very generous, but payments of subscriptions have been exceptionally good. A greater proportion of this loan has been fully paid up than was the case with any of the previous loans during the same elapsed period. There have been fewer failures to make good on subscription undertakings. Out of the seven hundred millions subscribed, it is believed that there will be less than a million dollars which will not be finally paid in. The loan has proved a remarkable one in every respect.

The year's showing of the Canadian National Railways proved disappointing to Parliament. It is recognized that the systems taken over by the Government have not been co-ordinated to their full efficiency and the Grand Trunk has not been taken over. Still an adverse difference of forty-seven millions between what was taken in and what was paid out on railway account is regarded as a serious thing.

Fixed Charges on Railways

The fixed charges, or interest payments, on the Government railways totalled nineteen millions during the year. When the Grand Trunk is taken over and dividends paid on the guaranteed debenture stock of that company, and the charges on Grand Trunk Pacific securities are taken into account, the annual bill of fixed charges will amount to thirty-seven and a half millions a year. Therefore, the operating expenses and thirty-seven and a half millions more will have to be earned before Government railways begin to turn anything into the treasury.

The competition of the Canadian Pacific is one of the controlling influences in the railway situation. The fixed charges of the Canadian Pacific are only ten millions a year.

The Government is faced with the option of paying the railway deficit out of general taxation returns or raising the rates to a point which would provide for operating costs and fixed charges. If the rates on the Canadian National system were raised the Canadian Pacific rates would have-

to be raised or the Government railways would not be able to compete for business. The suggestion that the rates of both lines should be raised and the surplus taken by special taxation from the Canadian Pacific does not meet with favor, for the Minister of Railways has stated that the Canadian Pacific would be able to put its extra earnings into betterments instead of into the Canadian treasury. This would mean that when the Canadian National system developed to a self-sustaining point, the Canadian Pacific would be developed to such a degree of physical perfection that it would be more than able to compete with the Government system. An increase in the transportation rates of the country would handicap business and be the subject of as great protest as would the paying of the railway deficit from the treasury. It is conceded that the management of the Canadian National Railway system is earnestly striving to make ends meet, and President D. B. Hanna has declared that given the Grand Trunk and reasonable time for co-ordination, he will be able to make the Government railways a paying proposition. This may be the worst year, and it is certain that Mr. Hanna and his associates will be given a further opportunity of making good their undertaking to turn the Government Railway system into a profitable thing for the country, without resorting to a general rate increase, except such as is given to Canadian and American competitors.

Progress of Merchant Marine

One link of the Canadian transportation system is paying its way and even better. This is the Canadian Merchant Marine, which consists of twenty-three ships, and which earned a profit of a million and a half dollars last year, although not all of the vessels had been launched and in service long enough to contribute to the earnings. The total fleet, when completed, which will be this year, will number sixty-three vessels and will be operated in conjunction with the Canadian National Railway system. As long as tonnage rates keep up this fleet should prove a profitable venture and will enable the Government railway management to maintain an efficient carrying system on both sea and land. Properly handled the rail and ocean services of the Government should prove a strong factor in developing Canada's foreign trade. Already Canadian Government vessels are on all the oceans and the Canadian flag on Canadian Government ships has been flown over cargo carriers in European, Asiatic, and South American waters.

The measure providing for Canadian representation at Washington has been introduced and will be one of the early bills to become law. The extent of Canada's representation at Washington is not indicated beyond a vote of sixty thousand dollars in the estimates. It is held that this should provide adequate representation, as the salary of the Canadian High Commissioner in London is only ten thousand dollars. There is no indication of who may be named for the Washington post, but the Government feel that there should be a strong man placed there.

Prospect for Labor Legislation

It is not expected that there will be labor legislation looking toward the eight-hour day or collective bargaining. It has been pointed out to organized labor that in this as in any other matters Canada cannot lead such powerful competitors as the United States. That country has not become a member of the League of Nations and has not enacted the legislation promised by the Peace Treaty. Canada has to compete with the United States as well as with the other strong nations of the world, and cannot enact laws in respect to labor or any other problem that will make competition impossible.

The naval programme of Canada will be modest for some years. Admiral Jellico made a report showing how Canada could participate in naval development if she desired to do so. The British Government offered ships. The situation was placed before a caucus of Government followers and the verdict of the caucus was that for the present there should be little or no expenditure on navy. But with ships on the seas carrying cargo it was felt that there could be no absolute abandonment of the navy. Therefore, the Government has decided to accept a cruiser and a couple of destroyers from Britain and to reorganize thoroughly the Canadian naval department. It is known that this has been badly needed. During the war first-class naval men were placed in Britain where they were most needed; and what was left were assigned to the outlying posts. Now that the war is over, it is held that the overseas naval organizations, such as that of Canada, are due for improvement. Canadians in the naval service of Britain are to be recalled to Canadian posts and men on this side, who have not shown high efficiency will be dispensed with. The work of reorganization has already begun.

There is no indication that the present session will be prolonged, controversial or anything but a good working meeting of the Canadian law-makers.

Important Customs Announcement

Drawback Regulations Are Amended

The general drawback regulations applying to articles manufactured or produced in Canada wholly or in part from imported duty paid materials are amended, to take effect from the 6th June, 1919, as follows:—

"When imported materials on which duties have been paid are used, wrought into or attached to any article manufactured or produced in Canada, there may be allowed on the exportation of such articles beyond the limits of Canada a drawback of ninety-nine per cent. of the duties paid on the materials used, wrought into or attached to the articles exported; provided that when both imported and domestic materials of the same class are used in the manufacture of the articles exported such drawback shall not be computed on a greater quantity of materials than entered into the exported goods; provided further, that such drawbacks shall not be paid unless the duty has been paid on the materials so used as aforesaid within three years of the date of the exportation of the Canadian article, nor unless the claims as presented at any one time aggregate ten dollars.

Claims for drawback submitted after the 31st day of December, 1920, shall not cover goods exported for more than one year and must be presented to the Customs with complete evidence attached within a period of six months from the date of the last export entry covered by the claim."

Exports to Newfoundland

Imported duty paid goods have been permitted to be exported to Newfoundland subject to drawback of 99% of the duties paid. The order-in-council authorizing this arrangement is dated 17th July, 1879, as amended by O. C. dated May 25th, 1883. These provisions have now been extended so as to include any British colony or possession in the Western hemisphere. Thus, imported duty paid goods may be exported in the same condition as imported to any British colony or possession in the Western hemisphere subject to drawback of 99% of the duties paid thereon. The claim for drawback must be made within six months of exportation of the goods; and the value of the articles claimed on at any one time must not be less than $100. Customs Form K. 13, is to be used in filing these drawback claims with the Customs.

Drawback for Home Consumption

When imported woven fabrics, on which customs duty has been paid, are used on and after the first day of January,

1920, in the manufacture of hatters' bands, there may be paid a drawback of ninety-nine per centum (99%) of the duty paid on the woven fabrics so used.

Canadian Section Revived

Franco-Canadian Trade

The Association has been informed that the Canadian Section of the British Chamber of Commerce, Paris, which was inactive during the war, has been revived, with the co-operation of Lieut.-Col. H. Barre, the Canadian Government Trade Commissioner, and that an effort is being made to secure support from Canadian manufacturers, merchants and traders.

The aims of the Canadian Section include such matters as (1) the obtaining of information on the commercial standing of French firms; (2) supplying of exact customs classifications of goods; (3) putting Canadian houses in touch with suitable agents; (4) notifying changes in French customs duties and proposed commercial legislation likely to affect special trades; (5) communicating enquiries from French buyers of Canadian goods; (6) filing members' catalogues for the information of buyers; (7) giving commercial and statistical information concerning Franco-Canadian trade; (8) aiding members in customs and technical difficulties; (9) providing means for the settlement of trade disputes by arbitration.

The subscription to the Canadian Section amounts to frs. 100 for non-resident members, and frs. 200 for resident members. The subscription includes a monthly bulletin, giving valuable information regarding new French legislation, change of regulations, decrees, etc.

Industrial Control

The Plant Executive or the Labor Leader—Which?

By A. B. WEEKS

General Manager, Canadian Northwest Steel Co., Limited, Vancouver

ESPECIALLY since the ending of the war by the signing of the armistice on November 11, 1918, the clamor by labor organizations for increased wages, shorter hours, better working conditions, collective bargaining, and their attempt at industrial control through recognition of the unions, and their attempt at industrial control through the closed shop, have been continuous and persistent.

Our industries, both great and small, through their executives, in the face of insistent economic reasons, or may we say international economic reasons for increased production and lower production costs, have granted one demand after another in the way of wage increase and curtailment of hours, at the behest of the labor organizations.

What is the Solution?

This clamor by organized labor is becoming ever louder, and their demands ever more insistent, until we have reached that stage in our industrial life where not only our continued prosperity but our very existence is threatened, at least temporarily, through our disregard of the laws of business economics, particularly as they relate to international trade.

For many years it has been a continuous contest on the part of the employer against outside forces, namely, the labor unions, for the control of the men engaged in industrial labor in our various industrial establishments. In the past few months the demand on the part of labor unions for a share in management through collective bargaining, through the labor unions, plant councils, etc., have become insistent, and the questions confronting business management at present, in the face of these ever-increasing demands, is, What is the solution?

Much has been said in the meetings of the various manufacturers' and employers' organizations, of the necessity for a campaign of public education. The writer grants that the necessity for such a campaign exists, but that a campaign of this character would of itself cure the present labor unrest is very doubtful. In the writer's opinion the time for an active campaign for the control of our labor by the plant executive has arrived. The campaign on the part of labor leaders for the control of labor is continuous and persistent, until the average workman is inclined to accept the teachings of the labor leader and classify the very occasional remarks of his employer as "some more hot air from the boss." Tactics must be met by tactics, and if the contest on the part of the labor leader for control is continuous, then on the part of the employer his endeavor for control must be continuous, collective and persistent.

In the writer's opinion much may be accomplished to gain the confidence and control of our men by closer co-operation with them; by a series of thoroughly organized and regular round table conferences, whereby the employer may gain a better understanding of the workman's viewpoint, his necessities and the conditions surrounding his life, and at the same time show the workman that the matter of wages and hours of work are not governed by the mere arbitrary ruling of the boss, but are on the other hand governed by the economic laws which control our national and international trade relations.

The average workman is an intelligent, fair-minded and patriotic citizen, and by instructing him in at least the fundamentals of the natural economic laws governing industry, his viewpoint toward wages, hours of labor and amount of production will be materially changed through his ability to analyze cause and effect, and in place of the present misunderstanding and unreasonable demands, we shall soon find that in our workmen we have a co-operative force working toward our mutual welfare and the public weal through the establishment of harmonious relations between employer and employee, without the intervention of any third party in the shape of labor unions.

Employers Should Get Together

Can the employers of this country not get together along these lines and effect a solution of our present vexing labor questions? This lack of co-operation and understanding between the employer and his employee, in the years past, has paved the way for the labor union, and is it not worth while, by endeavoring to establish confidence, co-operation and understanding between employer and employee, to arrive at those better relations which will make the labor union unnecessary and undesirable?

The answer to the question of "In whose hands shall industrial control rest—a plant executive or the labor leader?" lies in the hands of the employer himself. Which shall it be? Are you going to answer the question or allow the labor leader to answer it for you?

The 1920 Convention Province

An Account of the History, Resources, Scenic Attractions and Industrial Development of the Province of British Columbia in which the 1920 Convention of the C. M. A. will be held

AS a useful preliminary to the Excursion to the Pacific Coast, in which a large number of manufacturers from the Eastern and Prairie Provinces will participate, there is presented in the following pages a section devoted specially to a description of British Columbia. The Coast province is one possessing a rich and varied interest, not alone for the searcher after natural beauty, sport and recreation, but for the man of affairs whose concern is with the making, transportation and sale of goods. The coming Excursion will afford a unique opportunity for an examination at close range of many of the more famous attractions of the Province as well as of that rapid growth in industrial activity which has characterized the past few years. To give excursionists a valuable basis of knowledge, which will enable them to appreciate more fully the position occupied by British Columbia in the Canadian Confederation, is the more immediate purpose of this compilation.

Starting with the history of the Province, which is rich in romantic interest, its extent and resources are taken up, and then attention is devoted to such prominent industries as Lumbering, Mining and Shipbuilding. Here will be found useful statistics and other information that will give a comprehensive idea of the development of each industry. Space is also given to the industrial activities of Vancouver, Victoria and New Westminster, and the special attractions of each place are enumerated. Altogether, when one has read through the various articles, a very good idea of the position of the province is obtained.

The 1920 Excursion to the Wonderland of the Pacific, undertaken as it will be in one of the most charming seasons of the year, is certain to prove a delightful experience for all who join it, while from the business standpoint it should result in the establishment of a stronger bond of sympathy and interest between East and West.

The Excursion party will leave Toronto on special trains on the evening of Saturday, May 29th, and after making brief stops at Winnipeg, Brandon, Regina, Moose Jaw, Medicine Hat, Lethbridge, Calgary and Edmonton, will reach Vancouver on the morning of June 7th. The interval from June 7th to June 11th, will be spent in Vancouver and Victoria. On the return journey stops will be made at Lake Louise and Banff and excursionists will have the choice of travelling by all rail or rail-and-water route from Winnipeg to Toronto.



An Inspiration in Stone

Diagonally across the Inner Harbor of Victoria from the Empress Hotel rises the stately pile of the Provincial Legislative Buildings, one of the most beautiful and ornate buildings in Canada. This will be one of the sights to attract the interest of visiting members.

British Columbia in the Making

By B. A. McKELVIE

ACCORDING to a local legend, two angels were sent to seek the most favored portion of the earth as the future home of a worthy nation, and to endow it with the richest gifts from Nature's store-house. They selected the northern half of this continent, and lavishly bestowed on it the wealth of minerals, forests and waters which they had brought. When the work had been done, the angels paused and surveyed it. One was satisfied, but the other exclaimed: "We have distributed our treasures with an indiscriminate hand, but have left no place for the husbandmen of a mighty race." So they returned to their labor and swept the riches westward, piling up treasure-bearing hills and creating fertile valleys in order to leave in the centre of the domain a rolling plain ready for the plough of the tiller.

Discovery of the Province

This, then, is perhaps the reason that British Columbia has such a wonderful proportion of Canada's natural resources; why its great wooded mountain ranges, bursting with gold, silver and baser metals extend from the prairies to the sea, forming thousands of land locked harbors and winding inlets teeming with fish, while its countless valleys are productive of the best to be found in the realm of agriculture.

It was fitting that the discovery of this Province should have been made by men who were seeking the Eldorado of tradition. That they found it is the belief of those who have the "open sesame" to the rock-ribbed chambers of wealth in this western land. The magic words of success are, they say, "faith and work."

Tradition says that Juan de Fuca was the first to visit this part of the Pacific Coast.The date of his journey is given as 1592, but reliable information respecting it is not available. His name was given by a later explorer to the straits separating Vancouver Island from what is now the State of Washington. No actual record is obtainable before the year 1775 when Bodega and Hecate visited the locality.

British Columbians really date the history of their province from the arrival of Captain James Cook in 1778 on his third voyage of discovery. He had been commissioned by the British Government to explore north of the 45th degree in the hope that a passage might be discovered from the Pacific to the Atlantic. In this, of course, he failed, but he gathered valuable data respecting the coast, and chartered and named such places as Nootka Sound, Prince William's Sound, and Cook's Inlet.

Chelikoff, a Russian, was the next explorer of note to arrive. He examined the country from the south-west extremity of Alaska to Prince William's Sound. This was in 1783, the same year that the North-West Fur Trading Company was formed in Montreal to carry on business in the western wilds.

Other seamen and traders followed, and in 1787 Captain Barkley records the discovery of the Straits of Juan de Fuca, which he named after the Spanish navigator of two centuries before. The following year Captain Meares started shipbuilding on this coast when he launched the "North-West Coast" at Nootka. In 1789 a dispute arose between the British and Spaniards over the trading rights to the country. The Spaniards seized the British post and ships. The "Nootka affair" was the result. For a time it looked as if war might eventuate, but the settlement of the difficulty, October 28, 1790, put an end to such fears.

Arrival of Capt. Vancouver

It was to settle the claims arising out of the "Nootka affair" that Capt. George Vancouver was sent out by the British Government as commissioner. Having accomplished his mission he continued on the coast exploring the uncharted waters, and to him belongs the credit for first circumnavigating the great island which now bears his name.

The years which followed are replete with tales of wild adventure and daring exploits on the part of the intrepid traders who ventured into the country in search of wealth.

The first journey overland from Eastern Canada was made by Sir Alexander McKenzie, who reached tide water near Bella Coola, in 1793. Fifteen years later Simon Fraser explored the river, named in his honor, reaching the Gulf of Georgia along its banks.

The boundary between Alaska and the British territory was fixed by a treaty between Great Britain and Russia in

1825. The same year Fort Vancouver, now in the State of Washington, was located.

The Hudson's Bay Company, the trading organization which had so much to do with the development of Canada since its incorporation in 1670, was given exclusive privileges in the western country in 1836. In 1842 this company selected Victoria as its headquarters on the coast, and the next year erected a fort and stockade.

Settlement was fairly rapid about Victoria, with the result that in 1849 Vancouver Island assumed the status of a crown colony. Fort Nanaimo was founded in 1852, following the discovery of coal at that place two years before. The old blockhouse is still standing in an excellent state of preservation, in the business section of the city. The stockade, however, disappeared many years ago with the growth of the town.

The first elections on Vancouver Island were held on August 4, 1856, and eight days later the first Legislative Assembly convened at Victoria.

Gold was discovered on the Fraser and creeks of the Cariboo district in 1856. Two years later there was a rush of gold seekers to the vicinity, and thus started the first real settlement of the country. A few of these pioneers who came in the first stampede are still alive to tell of those adventurous days.

It was in 1858 that the mainland of British Columbia became a Crown Colony, and its boundaries were defined. The capital of the new colony was located on the banks of the Fraser River. It was to have been called Queensborough, but Her Majesty, Queen Victoria, who was asked to name it, expresed her desire to have it known as New Westminster. The first session of the Legislative Assembly met at New Westminster January 21, 1864. Vancouver Island and the mainland united as British Columbia in 1866, the first Parliament meeting at Victoria in 1868. Two years later the province entered Confederation.



A Giant of the Forest

Big timber on Vancouver Island, between Nanaimo and Alberni

November 6, 1885, saw the connecting by steel of British Columbia and the Eastern Provinces, when Sir Donald Smith, later Lord Strathcona, drove the last spike on the line of the Canadian Pacific Railway. The terminus of the line was to have been Port Moody at the head of Burrard Inlet, but later it was moved fourteen miles nearer the mouth of the inlet to the small settlement of Vancouver. The City of Vancouver was incorporated in 1886, and was destroyed by fire the same year.

Such, in brief, has been the story of Canada's Pacific province. In the thirty-five years which have elapsed since the first locomotive brought through communication from the East, the development has in many ways been phenomenal, and as yet its natural resources are to a great extent unknown and practically untouched.

The discovery of gold in the Klondike in 1896-7 gave the trade of the province considerable impetus, and laid the foundations for many of the manufacturing plants of to-day. Full advantage was not taken at the time of the opportunities offered by the northern gold fields. The result was that the Port of Seattle gained a lead over Vancouver, which the Canadian city has not yet overcome.

The industrial development of British Columbia in the days before the war was greatly retarded by local conditions. Transportation problems, high wages, and production costs and lack of markets. Like every newly opened western region of great potentialities, the province suffered from the activities of the "wild-catter" and his fellows, the "boomster" and "land speculator."

From the trial and sobering influences of war, British Columbia has emerged keen, alert and sensible to the necessity for business on business lines. Land values have been reduced, and are more in keeping with their real worth. The "wild-catter," "boomster" and "speculator" have departed, and in their place are to be found men ready to discuss expansion and development along sane and reasonably safe commercial lines.

No longer is the province served by one railway. Three transcontinental lines traverse the mountain passes of the Rockies, opening up rich areas for settlement. Two of these are under the control of the Dominion Government, while the Provincial Government railroad is being completed this year diagonally across the province. The settlement of the coast district with its 27,000 miles of tidal shore line, is resulting in new and more frequent marne communication. The water-borne commerce of the world is increasing to and from Canada's Pacific ports, demanding the construction of great concrete piers, wharves, warehouses, dry-docks, etc.

The greater equalization of living conditions between the western province and the older portions of Canada with the consequent levelling of wages paid in dustry, the utilization of by-products, and the introduction of improved machinery and business methods have reduced the margin between production costs of the East and West. Thus British Columbia manufacturers have better opportunities in the competitive markets of the Dominion.

The Extent and Resources of the Province

GEOGRAPHICALLY, British Columbia comprises about 3,815,855 square miles. Its rugged coast line is deeply indented with thousands of bays and inlets, while islands, varying in size from bleak, barren rocks a few acres in extent to Vancouver Island, with its thousands of square miles of mountain peaks, forest and farming lands, parallel the shore line of the mainland.

Just what the population of the province is at the present time is something on which there is no authentic information. Some authorities compute the population at 400,000, while others declare that the province is the home of as many as 700,000 persons. In 1913 it was estimated that there were approximately 400,000 people. The early years of the war saw a great decrease, not only of urban, but of the agricultural population. The clarion call of battle drew men from the land, the forest, and the mine. The Empire's danger brought the sturdy manhood of the West forward in unexpected numbers. More than 35,000 were accepted for British Columbia's fighting battalions, while thousands went overseas as mechanics in non-combatant services, or as reserves for Britain's army or the gallant navy. The men who left the province for the battlefields of Europe numbered at least 50,000, although there is no way in which the exact total can be ascertained. Certain it was that many communities were denuded of their physically fit men, and before conscription.



A Mighty Catch of Fish

Scowload of salmon from the west coast of Vancouver Island being landed at Victoria

The initiation of shipbuilding and other war industries brought a rush of artisans to the manufacturing centres, particularly Vancouver, Victoria, and New Westminster. The close of the war and the return of the veterans from Europe has greatly increased the population. While not all those who left the province have returned—British Columbians having died gallantly on every field from Ypres to Mons—the total number of citizen-soldiers in the province to-day is far greater than the quota enlisted here. Every man who went away from this province, it has been said, was a publicity agent, and as a result of their stories of the wonders of "Old B.C.," thousands of their pals of the trenches and billets have come west to make their homes on the Pacific.

Greater Vancouver formerly boasted 150,000 residents. It now has, on a conservative estimate, at least 25,000 more than that number. In 1912, the banner year, 102,000 persons resided in the city proper. The assessment census for 1919 shows over 112,000. The same applies to the City of Victoria which now has a resident population of approximately 65,000.

The population of the agricultural districts has increased as rapidly as has that of the cities. This has been largely due to the Dominion and Provincial Government efforts to settle veterans on the land. It is safe to consider the population of British Columbia to-day at 500,000.

The actual resources of the province are fairly distributed. The coast district from the international boundary line to the Portland Canal, including the islands, is rich in mineral, coal, timber, and fishery wealth. The sheltered valleys, particularly that of the Fraser River and on Vancouver Island, are productive agricultural areas.

Farming and mining are extensively carried on in the interior districts, while lumbering is added to the returns from these sources in the mountain regions. The great central districts have countless fertile acres, capable of supporting a tremendous population. The rivers and creeks bear values from the hidden gold of the hills.

An illustration of what can be accomplished in the development of this western country may be cited from the returns in agriculture for the past year. Since the war greater attention has been paid to land settlement and agrarian pursuits than ever before. Although the areas on which veterans have settled under the direction of the Dominion and Provincial Governments have not yet been able to demonstrate their productivness, the richness of the soil has been amply proven.

The increase in the value of the crops for 1919, was more than $10,000,000 over the aggregate of the previous year. The acreage of grain was greater and the yield 50 per cent. above that of 1918.

The increase in dairying was marked. The returns were $676,452 greater than ever before. This was largely made up by the manufacture of 29,604 pounds of butter more than the 1918 total, and by the sale of 300,000 additional gallons of milk.

On an estimated value of $12,287,510 invested in live-stock, there was, according to the Provincial Government Department of Agriculture, an increase in horses, sheep, swine, and other farm animals amounting to $2,588,631. Of this amount $1,786,280 represents the increase in the value of cattle.

Poultry ranching is being largely engaged in. During the year a desirable increase in production from these small farms was reported. This included the sending to market of 834,484 dozen eggs and 1,096,801 pounds of poultry meat over the total disposed of in 1918.

British Columbia fruits have long been noted for their excellent quality, size and coloring, and this branch of farming is becoming more and more important each year. Orchards planted in pre-war days are now coming into full bearing. Each year the proportions of the crops will increase. The added value of the fruit shipments of 1919 over the corresponding twelve months was $2,498,766, representing 26,743,744 pounds.

Under its land settlement scheme the Provincial Government cruised 101,309 acres during the year, and actually acquired by purchase 18,763 acres. Of this land, 10,000 acres was allotted and sold to 68 settlers, and 8,500 acres were made ready for settlement. Work was started on 13,000 acres additional.

Province's Mineral Wealth

While the mineral production of British Columbia last year, as was anticipated, did not reach the total of 1918, it aggregated $33,,421,333. The decrease was almost entirely due to the falling off in the demand and price for copper which followed the end of the war. It is declared by experts that the prospects for the industry have never been more hopeful, nor the proposed development greater than at present. The ore reserves of British Columbia can never be estimated, but scientists have calculated the coal deposits at 83,828,523,000 tons. The mines of the province have produced to December 31, 1919, the vast total of $670,774,914.00.

The lumber industry is one from which the people of the Pacific Coast derive an immense revenue. With the greatest stand of saw log timber on the continent, and illimitable stocks of pulp wood, the future of the lumbering industry is filled with promise. It has been computed by one statistician that if the timber of the province was all cut that a board walk 2,000 feet wide could be built around the equator, and there would be enough left over to construct a stairway to the moon.

While fishing resources of the coast waters still yield a rich harvest, the intensive methods used in the past on the Fraser River have practically eliminated the runs of sockeye salmon. The returns, however, are still exceedingly profitable. The public, canners, and fishermen are now fully alive to the need for rehabilitating the rivers, and are giving careful study to the propagation of salmon. It is expected that in a few years, with proper handling, the Fraser River runs will again reach the proportions of other years. The deep sea fisheries are in a prosperous state, and there is every indication of their growing importance.

Not alone by the growth and development of her vast natural resources does British Columbia expect to become a wealthy and progressive province. It is expected that the trade development of Canada will be carried on largely through the Pacific ports of the Dominion. This idea is strengthened by the belief that the Canadian Government will, through its ocean services, bring great quantities to the Port of Vancouver for shipment over its railway, and will export largely from British Columbia.

Across the broad Pacific are countries and peoples anxious and ready to do business with Canada. They require our manufactured articles, and in return are ready to send us such essentials as we need in our industries. Such trade means much to the future prosperity of the nation. British Columbia realizes the importance of it, and is preparing to fit its harbors and ports to handle the great fleets of commerce-carriers which will undoubtedly come as economic conditions rectify themselves after the turmoil of war.

B.C.'s Shipping Facilities

Dry docks are being constructed at Vancouver and Victoria. There is already a giant dry dock at Prince Rupert, now being used for steel ship construction. Government docks are being started at Vancouver to cost $4,000,000, while other harbor improvements under contemplation will cost another $1,000,000. The Dominion Government is already possessed of one concrete dock at Vancouver, which cost $2,000,000, and a grain elevator which holds 2,500,000 bushels. The C.P.R. will shortly start on the expenditure of several million dollars for additional docking facilities demanded by the increased trade of its services.

While British Columbia can do much to bring prosperity through trade to the Dominion, the whole of Canada must cooperate, and particularly the manufacturers of the nation. The markets are waiting and the people of the west are ready to do their share in keeping wide open the sunset gateways to the future prosperity of the great Dominion. Let everyone help to bring that prosperity as speedily as possible.



An Attractive Corner of Beautiful Victoria

On the left rises the imposing front of the Empress Hotel, in which the annual banquet of the C.M.A. takes place on June 10; on the right stands the many-domed pile of the British Columbia Parliament Buildings

Lumbering in British Columbia

LUMBERING is British Columbia's most accessible natural resource, and the one most easily exploited. It is not surprising, therefore, that the contributions from this source to the public revenues and the prosperity of the province are larger than those from any other industry.

It has been said that "the forest reserves of British Columbia are inexhaustible." This, of course, is true only to the extent that measures are undertaken for conservation and reforestization. At the present time the natural growth of the forests is approximately three times the yearly cut, but the destruction by fire reduces this to a narrow and dangerous margin. So extensive, however, are the woodlands of the coast and interior hills and valleys that with the natural increment entirely off-set by conflagrations, it will take two hundred years to denude the province of its merchantable timber at the present rate of production.

The cut for last year was 1,758,329,995 feet (board measure). The stand of saw log timber is variously estimated from 350 billion feet to 400 billion feet. The immensity of this can be judged from the fact that the Dominion forestry experts give the total standing timber in Canada as being between 600 billion and 800 billion feet. This gives British Columbia credit for one half of the forest reserves of Canada. The pulpwood stand in British Columbia is calculated as being 250 million cords. The line of demarkation between pulpwood and saw timber is variable. Ordinarily saw-log timber is said to be trees having a diameter of more than 10 inches, those of smaller thickness being used for pulpwood purposes. But as trees of this thickness and under are often used in saw mills and those of larger dimensions for pulp, the exact reserves of pulp wood cannot be exactly stated. The figure given, however, is considered to be a conservative one.

Some idea of the menace of fire can be gleaned from the estimate of Government engineers that twice the amount of the present stand in the province has been destroyed by fire in the past. Or that the fire fiend has wiped out the equal of the total available supply in Canada to-day.



A Transportable Lumber Camp
Buildings in which lumberjacks are housed and fed may be moved from place to place



Interior of Dining Room
A view showing how well the men are provided for in the way of food and service

While the cut of saw logs was not as great during 1919 as in the previous year, the value of the timber products showed an increase of more than $16,000,000. The decrease in the cut was due to the cessation of the War Board's spruce production camps—for airplane timber—on Queen Charlotte Islands. Here during 1918 some 28 million feet were cut—more than the total of all other districts on the North American Continent.

The development in the lumber and pulp industries during the past year are indicated in the comparative tables:—

	1918	1919
Lumber	$26,219,697	$31,000,000
Pulp and Paper	10,517,250	12,554,257
Shingles	5,805,417	12,801,564
Boxes	1,845,195	2,142,000
Piles and Poles	394,871	769,962
Miscellaneous (cut by railroads, mines, etc.)	1,773,821	5,256,520
Ties	*.....	2,091,346
Additional value contributed by the wood-using industry	1,689,810	1,720,000
Product of Dominion lands	4,953,829	*.....
Laths	120,278	195,594
Logs exported	148,808	991,365
Total	$54,162,523	$70,285,094

* Included in other items.

Water-borne shipments from British Columbia ports in 1919 show an increase of about 17,000,000 feet over those for 1918. The total was 105,111,090 feet, the shipments in 1918 being 88,069,029 feet. Roughly, 60 per cent. of the water-borne shipments were to Great Britain, no less than 65,264,720 feet being sent there in the twelve months ending December 31. Exports to other countries were: Australia, 6,891,728; South America, 1,551,574; China, 16,218,533; Japan, 4,537,959; Africa, 5,044,852; United States, 4,139,074; Manila, 987,562; Straits Settlement, 475,088.



A typical logging scene on the Pacific coast, showing the goodly sizes of some of the logs taken from the forests of the province

Pulp and paper industry figures for the year were most gratifying, both in point of value and production. In 1918 the newsprint manufactured was 112,206 tons. This increased the following year to 123,607 tons. The production of sulphite pulp increased from 66,054 tons to 80,047 tons. Sulphate pulp reduced from 12,188 tons to 9,473 tons, being reflected in the decrease in the weight of Kraft papers, of which 7,202 tons were manufactured in 1919 as against 8,277 tons in 1918. The manufacture of ground wood pulp increased from 91,145 tons to 99,769 tons. The value of the outfut of the pulp and paper industry increased by $2,000,000.00.

Where Heaviest Timber Stands

The heaviest stands of timber and most extensive forest areas are located in what is known as the coast district. This is West of Cascade Range, and is again sub-divided into districts termed: Southern Mainland, East Coast of Vancouver Island, West Coast of Vancouver Island, Northern Mainland, and Queen Charlotte Islands. Logging in the past has mostly been carried on in the Southern Mainland and East Coast of Vancouver Island districts, where the majority of the lumber mills are located. Incidentally there are about 390 mills in operation in the province, about 150 of which are in the interior districts, and the balance on the coast. Most of these are located in the vicinity of Vancouver, New Westminster, Victoria, and Nanaimo.

In these districts it is estimated that there is still standing 120 billion feet of timber, made up as follows: Douglas fir, 50 billion; Western cedar, 35 billion; hemlock, 20 billion; balsam, 10 billion; spruce, two billion, and the remainder of less commercial varieties. On the West Coast of Vancouver Island there is judged to be, 55 million feet of the varieties named. This added to the reserve on the East Coast and Southern Mainland gives 175 billion feet, or 50 per cent. of the estimate for the province.

The Forests of the North

The Northern Mainland district, extending from Queen Charlotte Sound to Portland Canal is a rocky and mountainous country, timber being confined for the most part to the shore line and valleys. This district contains, however, 23 billion feet of saw timber and considerable stocks of pulp wood.

The stand of 15 billion feet of timber on Queen Charlotte Islands is mostly Sitka spruce and hemlock.

While the forests of the interior do not cruise as heavy to the acre, the total merchantable lumber is high in the aggregate. Owing to the difficulties of transportation the development inland has not been as rapid as on the coast. The estimate of timber is given at 136 billion feet, divided as follows: Spruce, 58 billion; cedar, 18 billion; balsam, 14 billion; Douglas fir, 12 billion; hemlock, 12 billion; lodge pole pine, 12 billion; bull pine, four billion; larch or tamarac, three billion; Western white pine, two billion feet.

The Douglas fir, the most valuable tree on the Pacific Coast, is highly prized for its strength and durability. It grows to tremendous heights, specimens 300 feet high being not uncommon, while its base circumference is often from 30 to 50 feet. It grows as far north as the 52 degrees, from where red cedar, hemlock, and spruce predominate in the forests. Douglas fir is not confined to the coast, being found as far inland as the slopes of the Rocky Mountains.

Some Famous Kinds of Wood

The red cedar is next in importance. From it the shingles which are exported in such profitable quantities are milled. These are gaining in popularity in the markets of the world.

The varieties of spruce which grow in such quantities throughout the province are fast gaining in value, furnishing the supply for the pulp mills, while the coast, or Sitka, spruce is especially suitable for airplane construction on account of its strength, lightness and elasticity.

For a long time hemlock was not used to any great extent, but this excellent wood is gaining in popularity as its admirable qualities are recognized. White pine, tamarac, balsam, yew, maple and cottonwood are also cut for commercial purposes.

There are twenty-three coniferous trees and a like number of broad leaf trees indigenous to the Province. The capital invested in the lumber industry of British Columbia

(*Continued on page* 152.)



Ships in the Process of Building

View of one of the six shipbuilding plants in operation in the Vancouver district

The Coast Shipbuilding Industry

BRITISH Columbia shipbuilders—even in the hectic days of war production—never attempted to sacrifice efficiency in construction and reliability of workmanship for records of speed in launching. They preferred to build ships that would serve the Empire's needs in the long years of peace rather than hulls which would serve only for the emergencies of war.

In localities to the south where the advertising value of rapidity in building was highly regarded, useless, unseaworthy boats swing idly at anchor—representing millions of dollars of wasted public funds, while long, tedious enquiries and nasty scandals now occupy the attention of Government officials. Foreign buyers, anxious for bottoms to replace those scuttled by Hun submarines, have had to refuse acceptance because the vessels delivered to their order were unable to make the trip across the Atlantic.

Boats Built Seaworthy

It is not with any sense of jubilation at the loss to the commerce fleets of the world that British Columbians view these circumstances. But a sense of pride is permissable in the fact that the boats launched from the Canadian ways are now carrying cargoes to and fro across the oceans of the two hemispheres. This pride is especially worthy when it can be openly stated that acceptance was not refused of a single ship put into the water from a Western Canadian yard.

When, in the days before the war, suggestions were made that British Columbia should be the home of extensive shipbuilding plants, the idea was ridiculed. "Where would the shipwrights come from?" was one of the questions asked by scoffers. "Did British Columbia hope to build boats as seaworthy as those from the Clyde?" was another oft-repeated interrogation, while the concluding argument was the statement that local constructors would have to import all the machinery and auxiliary plants for the finished ships.

Such were the objections raised by those who doubted the energy, resource and determination of western business men. The answer has been given by the dozens of wooden craft and great steel freighters that are to-day scattered over the face of the globe. The declaration of the Department of Marine that the ships constructed on Government order at Vancouver were the equal of any afloat, has proven the workmanship, while the busy mechanics in the metal shops of Vancouver and Victoria have given denial to the libel on their capabilities by turning out first-class boilers, engines and auxiliary equipment.

It may be of passing interest that the cabled reports for one week recently showed that British Columbia-built boats were at such remote ports as: Sevastopol, Newport News, Liverpool, London, Yokohama, Rotterdam, Boston, Barry, Trieste, Barcelona Martinique, Constantinople, Cardiff, Immingham, Malta, Venice, Buenos Aires, Gothenburg, and Sydney.

Active shipbuilding commenced in British Columbia when the Provincial Government offered a guarantee of interest on the earnings of wooden ships constructed and operated from the province, as an encouragement to the industry. Advantage was taken of the offer by Mr. H. W. Brown and associates. Work was started on a fleet of twelve auxiliary five-masted, bald-headed schooners for the lumber trade by the Wallace Shipyards, Ltd., of Vancouver, and the Cameron-Genoa Shipbuilding Company, of Victoria. These boats were equipped with 320 h.p., Bolinder Diesel engines.

The "Mabel Brown," 2,500 tons, was the first boat launched, taking the water from the Wallace ways on January 27, 1917. In the following five months this yard launched these schooners at the rate of one a month.

Before the first wooden schooner was well on the stocks, Mr. A. Wallace, head of the shipbuilding company, determined to extend his operations to include steel ship construction. J. Coughlan and Sons, steel fabricators, had also embarked on an ambitious scheme for building steel boats, locating a four-ways yard on False Creek. The first boat was an 8,800 ton ship, originally on private order, but requisitioned by the Admiralty for the period of the war. This was the "Alaska," the largest vessel of its kind attempted to that time in Canada. Its launching on January 19, 1918 was a complete success. But the honor of putting the first steel ocean-going cargo steamer into the water from a Canadian shipyard went to the Wallace Company. It was the "War Dog," 4,800 tons d.w., which went down the ways, May 20, 1917.

The Tonnage of 1918

During 1918 forty-two vessels were launched in British Columbia, having a total tonnage of 155,690 tons d.w. Of these, Vancouver contributed eight steel and twelve wooden steamers, and six wooden schooners. Victoria built nine wooden steamers; New Westminster four wooden steamers; and Coquitlam three wooden steamers.

During that year there were in addition to the steel shipyards already mentioned, the following yards engaged in building wooden craft; Cameron-Genoa Shipbuilders, Ltd., and the Foundation Co., of B.C. Ltd., at Victoria; Pacific Construction Co., Ltd., Port Coquitlam; New Westminster Construction Co., Ltd., New Westminster; Western Canada Ship-

yards, Ltd., William Lyall Shipbuilding Co., Ltd., which took over the Wallace Shipyards' wooden construction ways, at Vancouver.

Two new yards started work on steel boats during 1918. These were the Harbor Marine Co., Ltd., of Victoria, and the Prince Rupert Drydock and Engineering Co., Ltd., Prince Rupert, both of which undertook Government contracts.

The year saw the closing of the wooden shipyards of the province. This class of vessel had been constructed to meet the emergencies of war, and with the coming of peace boats of a more durable type were required.

During the year the output of British Columbia yards totalled ten steel and forty-six wooden vessels, with an aggregate tonnage of approximately 170,500 d.w. Four of the larger craft were delivered on the order of the Imperial Munitions Board, while six were for the Canadian Government Merchant Marine. The wooden craft were for French, Norwegian, and Greek interests. Forty of them were wooden steamships for French buyers, two Greek, one Canadian, and three Norwegian vessels were launched during the year.

The programme was as follows:—

J. Coughlan and Sons, Vancouver, six steel ships, with a total of 51,400 tons.

Wallace Shipyards, Vancouver, four steel ships of 18,800 tons.

Foundation Co., Victoria, twenty French steamers, 60,000 tons.

Cholberg Ship Co., Victoria, three Norwegian sailing vessels, 4,500 tons.

Lyall Shipyards, Vancouver, eight French ships, 12,000 tons.

Western Canada Shipyards, Vancouver, five French ships, 7,500 tons.

New Westminster Construction Co., five French ships, 7,500 tons.

Pacific Construction Co., Port Coquitlam, two French and two Greek boats, 8,600 tons.

B.C. Marine Railway, Vancouver, steamer, Canadian, 500 tons.

The end of the year found approximately 65,600 tons of shipping on contract for 1920. The Coughlan Company had two 8,100-ton steel ships to complete for the Canadian Government Merchant Marine. One of these has since been launched. The Wallace Yard recently launched an 800-ton steel boat for the Union Steamship Co., and will build two 8,100-ton steel vessels for the Government.

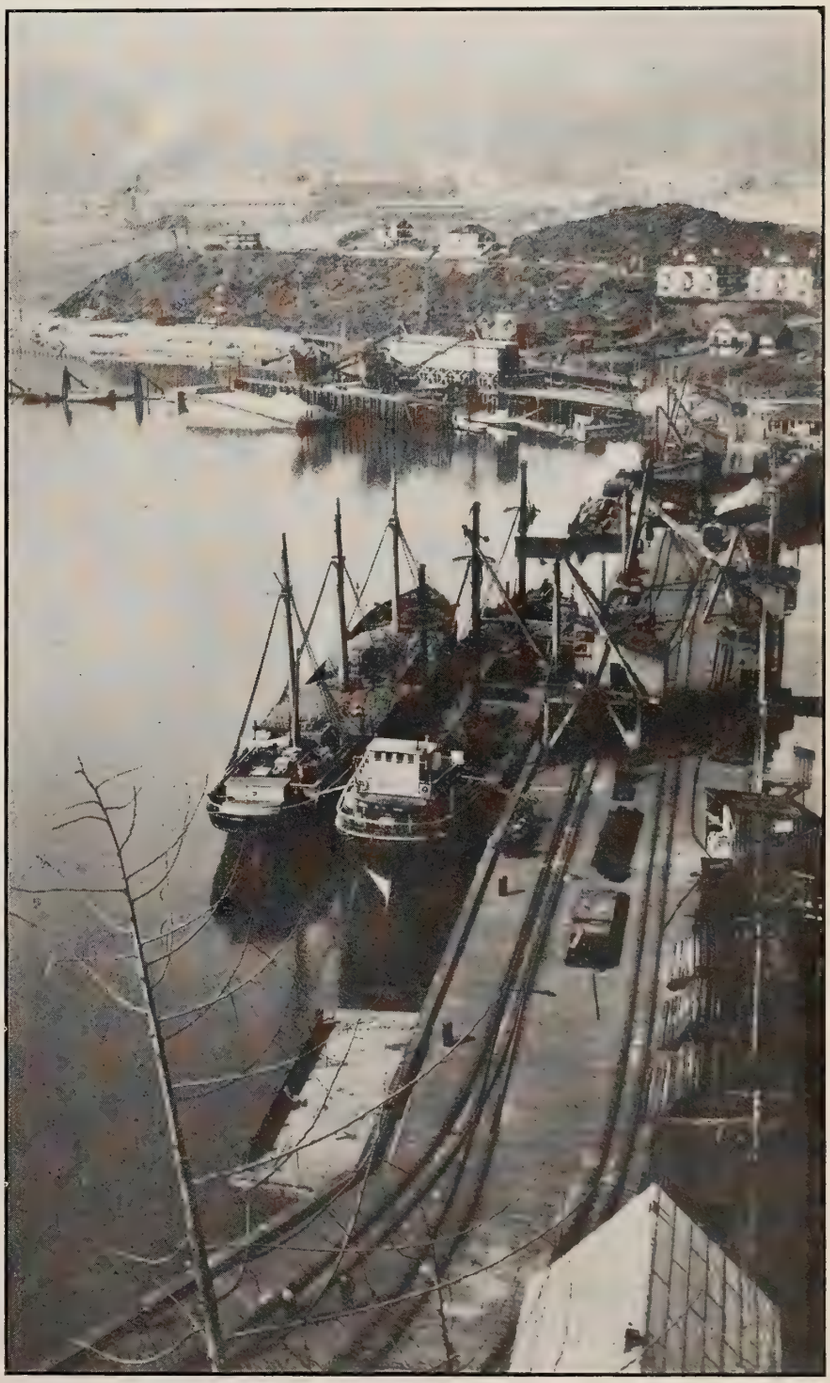
The Harbor Marine Co. (Victoria Machinery Depot) of Victoria, is working on an order from the Government for two 8,100-ton boats, while similar work is engaging the Prince Rupert Drydock and Engineering Company at Prince Rupert.

Efforts are being made to induce the Government to place further orders for ship construction on the Pacific Coast, it being contended that, with some such encouragement for a short period, the industry will become permanently established, and orders can be secured in competition with foreign builders.

The Federal Government has made an offer to finance wooden shipbuilding at Victoria to seventy per cent. of the cost. There is no intention on the part of the Government to build boats of this class for its own services, but in order to assist the industry will advance, as a loan, up to seventy per cent. of the money required by private interests to build wooden boats. This, it is expected, will result in a revival of the industry to a certain extent.

It is particularly gratifying to the people of British Columbia that the boats now building in this province for the Canadian Government Merchant Marine will be put in service from British Columbia ports. It is also pleasing to know that the suggestion that steamship lines be established from Vancouver to Australasia came first from the British Columbia Division of the Canadian Manufacturers' Association.

The service was inaugurated on January 24 this year, when the "Canadian Importer" left British Columbia for the Antipodes with a Canadian cargo. Before long it is expected that the Canadian Government Merchant Marine will also ply be-



Wharves at Anyox, B. C.

Showing the facilities for handling ore and coal and shipping metal from the big smelters in the background

tween Vancouver and South American points, and perhaps to South Africa.

The shipbuilding industry has meant much to the coast province. Just how much can be judged from the fact that during 1919 the Coughlan yards alone employed on an average 2,500 men, and the earnings in wages amounted to approximately $2,100 each. In addition hundreds of persons were employed in metal trades shops and other smaller concerns dependent largely on the shipyards.

British Columbia steel shipbuilders have labored under difficulties. The supply of steel for their plants was largely imported from Eastern United States, and in this they suffered, not only from uncertain deliveries, but arbitrary freight rates, One of the greatest complaints voiced by British Columbia manufacturers is in connection with the six-cent arbitrary freight charge above the terminal rates to Seattle and Puget Sound points on rail shipments originating in Eastern United States. This charge on the steel required for a standard vessel amounts to between $8,000 and $10,000. An earnest effort is now being made to have this charge eliminated.

With steel water-borne from Nova Scotia it is expected that greater progress can be made at reduced costs. Eventually, if there is promise of permanency for the industry, British Columbia will have its own steel plants, manufacturing materials from native iron ores, it is predicted.

The Mining Industry of British Columbia

EXAGGERATION is unnecessary and words of fulsome praise idle, in describing the mineral wealth and potentialities of British Columbia. The accomplishments of companies operating on lines of scientific engineering and following common sense methods of business, bear sufficient testimony to the possibilities of the mineralized hills and valleys of the Province, while the romance of the industry has been such as to fire the mind of the most unimaginative.

Mining first attracted an influx of settlers to British Columbia. To-day it is regarded as the industry upon which the future will be most solidly established. Every portion of the Province is mineralized, and practically every metal known to North American geology is found within its borders.

Development work in the metalliferous mines has chiefly been confined to the recovery of gold, silver, lead, copper, zinc and iron, but considerable effort is now being put forth in the exploitation of the known resources of molybdenite, platinum, manganese and chromite.

Lack of transportation has retarded the growth of the mining industry, especially in those metals requiring heavy machinery for production, or necessitating the shipment of ores long distances for treatment. The great producing camps of the Province are situated either contiguous to the coast or close to railway lines. The great central and northern interior country with its veins of gold, silver, copper and lead bearing ores, must wait for the opening of roads before full development can be attained. These will only be built as required and a capital comes forward to develop the latent resources of British Columbia.

It has been often stated by public men, conversant with the extent to which British Columbia's industries have been developed: " The mining resources of the Province have not yet been scratched." The truth of this may be realized when it is stated that the great northeastern corner of the Province, comprising thousands of square miles has not yet been sufficiently explored as to admit of the publication of maps of it.

Nor have the mineral deposits of the coast districts been more than approached. This is indicated by Mr. G. A. Clothier, resident government engineer, for District Number One, comprising the coast, north of Vancouver Island, who says in his report to Hon. William Sloan, Minister of Mines:

" I would like to again call the attention of the prospector to the immense field open to him along the coast on the islands and from the head of Portland Canal north, along the eastern contact of the coast granite with the interior sedimentaries, to the Stikine river, and north of that on the same belt, through the Atlin country. The coast and islands, as can readily be seen on the map, are easily accessible at any point. The eastern contact belt, from the head of Portland Canal north, gives promise of becoming a great mineral producing area, judging from those portions of it which have been developed to any extent—the Salmon and Bear River sections, the Anyox section and the Alice Arm section. The southern portion of this belt is reached from Stewart, either by way of the Salmon River valley, over the Salmon River glacier, or the Long Lake glacier, or by way of the Bear River valley over the Bear River divide on the Bear-Naas trail, which extends through to Meziadin Lake. The northern portion is accessible by way of Stikine River, on which the Barrington Transportation Company runs a weekly boat from Wrangel to Telegraph Creek, commencing about May 15.



A Typical B. C. Mining Town

This is Anyox, 100 miles north of Prince Rupert, where the Granby Consolidated Mining and Smelting Co., operate an immense smelter

"In all probability prospectors' trails will be put into that belt this coming year by the Government from the Stikine and Iskut Rivers, south following the south branch of the Iskut, north from some point on the Bear-Naas trail, over the Bear River divide, and over the Salmon River and Long Lake glaciers, thus assuring definite and serviceable routes to facilitate the prospector in his work of extending the known mineral producing area."

By the foregoing it will be seen that not only does the Government believe that there is ample opportunity for the prospector, but that every assistance is to be given in developing a section of the Province in which the production and advancement of the industry last year proved so attractive. There is already every indication of a rush to this locality during the present summer.



A Power House in the Mining Country

Water is led down in a pipe-line from a dam high up in the hills and turns the water wheels in the power house

The mineral production in this district during 1919 was very satisfactory. The value of the aggregate production of the Province as a whole was below that of the previous year, but far ahead of the total of any pre-war period.

The out-put of the mines in 1919, was valued at $33,421,333. This was $8,361,141 less than the amount for the preceding twelve months. The falling off was almost entirely due to the demoralization of the copper market, following the close of the war. With accumulated war stocks on hand, production necessarily slackened, while the price fell away. During the last months of the European struggle copper was quoted at 26 cents a pound at New York. With the demand for copper halted, the price naturally declined, reflecting on the aggregate income from mining in this Province. The decrease in the value of the products of metalliferous mines, amounting to $7,815,221 was almost entirely due to copper conditions and quotations. The production of gold showed a decrease of $506,947, but again this was due to slackened demand for the baser metal, as practically all of the copper ores of British Columbia carry appreciable gold values.

The output of silver during the year showed an increase, not only in value, due to high prices, but in tonnage as well. New properties were opened, and old workings revived.

While the collieries showed an increase in 1919 on the coast, several of those of the interior were closed for considerable periods with labor troubles, caused, it is stated, by aliens employed there. The net result was that a decrease of $357,718 was shown in the total value of coal produced for 1919.

The production during 1919 may be given as follows: Gold, placer, 14,325 oz., $286,500; gold, lode, 141,769 oz., $2,930,365. Total gold, $3,216,865.

Silver, 3,667,516 oz., $3,871,631; lead, 32,134,136 lbs., $1,658,121; copper, 45,984,046 lbs., $8,631,205; zinc, 43,694,583 lbs., $2,717,803. Total, metalliferous, $20,095,057.00.

Coal, 2,357,218 long tons, $11,786,090; coke, 98,598 long tons, $690,186. Total of collieries, $12,476,276.00.

In addition to the above, miscellaneous metals and building materials had an aggregate value of $850,000.

The feature of coast mining during the year was the activity in the Portland Canal and Alice Arm districts. The Premier Mine, near Stewart, at the head of Portland Canal, made rapid progress and blocked out sufficient high grade ore to maintain operations for a great many years. The outlook for this mine was so promising that New York capitalists bought a controlling interest in it at a price said to run into the seven figures. Like most of British Columbia's successful mines, its history is one of hard luck for the original operators and success for those who had faith enough to continue development under discouraging circumstances. When Mr. R. K. Neill, the managing director of the company took hold of it several years ago, he found that the mine had been run parallel to the main ore body and that drifting had ceased within a few feet of high grade rock. Under his management ore valued at $10,000,000 was blocked out, and it was on this showing that the New York syndicate took an interest in the mine.

The Dolly Varden Mine, at Alice Arm, is another romance of western mining. The Taylor Engineering Company, of Vancouver, contracted to build a railroad from tidewater to the camp, 18 miles inland. The company then in control, sold out to an eastern concern, but in the transfer no provision was made by either party to liquidate the debt against the property to the engineering company. This was not paid. The matter was taken before the Legislature and after a lengthy investigation, an act was passed authorizing the Taylor interests to take charge of the mine in the event that the company operating the mine refused to meet the liability, amounting to $462,000. The company defaulted payment, and the Dolly Varden was taken over by the Taylor Engineering Company. Since that time it has developed into a "wonder mine." The Government report cites: "Five months from the time work started, 6,373 tons of ore had been shipped that will yield approximately 400,336 ounces of silver; about 40 tons of this was 'bonanza' ore."

While practically every other copper mine in British Columbia reduced its tonnage during 1919, that of the Britannia mine, near Vancouver, and incidently the largest copper mine in the British Empire, actually increased its output. The concentration mills at Britannian Beach, 28 miles from Vancouver, on Howe Sound, received from the mine 750,000 tons of ore, which yielded approximately 20,000,000 pounds of copper, 110,000 ounces of silver and 3,200 ounces of gold. Several months during the year the production reached more

(*Continued on page* 152.)



The Impressive Skyline of Vancouver, our 1920 Convention City

Vancouver's Industrial Achievements

By J. REGINALD DAVISON
Industrial Commissioner

VANCOUVER, "The Lion Guarded City," is strategically located at the portal of a province immensely rich in natural resources. Through its splendid harbor, as well as by its numerous railway arteries, it is in a position to receive from and ships to all parts of the world those raw materials and manufactured goods which are the source and product of industrial effort.

British Columbia is first of all a producing province. Its 395,000 square miles of area contain natural wealth of such immense extent that translated into a commercial story of dollars and cents, the sum total is well-nigh beyond comprehension. Lumber, minerals, water power, pure drinking water, wild medicinal herbs, agricultural lands, are a few of the land riches, and, in the fresh and salt waters are fish.

Three Canadian transcontinental railways and every trunk railway in the United States are connected with Vancouver, as well as the Pacific highway motor road from the Mexican border and the network of North American paved roads that will be joined into one grand evergreen highway. Eight trans-oceanic shipping lines and a fleet of coastwise vessels bring and carry goods from and to Vancouver's docks in ever increasing volume.

Vancouver never has a closed harbor. Three hundred and sixty-five days in the year—and sometimes 366—ships come in and go out, and, not only is shipping uninterrupted the year round, but the generally mild climate gives much economic advantage industrially. Without heavy snow or deep frosts, buildings are of less expensive structure; work is not delayed, health is not impaired, and materials are not destroyed.

Some Outstanding Figures

Vancouver bank clearings for the year 1919 were $635,913,205; more than ten million and a half greater than they were during the biggest boom year that Vancouver ever experienced. Vancouver has no boom now, yet there is a steady growth in population, land settlement, wages, and all industries. There is an almost weekly discovery of something new that can be made from local resources, that at once develops into a new industry. The population of Greater Vancouver is now 195,000, and the city is 34 years old.

During the years 1918-19 an industrial island has been built within the heart of the city; a working Venice, it might be described, in the centre of a shipping Liverpool. An arm of the sea, spanned by five wide viaducts, cut through the wholesale and retail district of Vancouver, dividing it nearly in half. At the times of high tide this arm, known locally as False Creek, was a mighty river. When the tide was out it was an unsightly stretch of mud flats. Many big industries are built on the waters of Burrard inlet and the Fraser river, but it was divined by minds looking towards the best interests of the city and of the manufacturers, that False Creek would, if reclaimed, add greatly to the city's appearance, to the city funds, and to manufacturers' interests. The matter was taken up by representative men with the proper authority, and permission given to "go ahead with the project."

Development of Granville Island

In less than two years Granville Island, as the reclaimed land is called, is a hive of industry reached by roadways from the different sides of the city, and having one wide canal as a front street for all factories. It is a 28-acre industrial site, with 39 factories working at full strength, while negotiations are pending for the remaining sites.

These factories built upon Granville Island are nearly all new to Vancouver, the list comprising the Etna Saw Works, Ltd., saw manufacturers; British Columbia Equipment Company, Ltd., machinery; Canadian Waterwheel Company, water power machinery; Atlas Steel Products, Ltd., metal working plant and storage; Crane Company, Ltd., valves, steam fittings, plumbing goods; A. Carruthers, Ltd., hides and furs; Dominion Construction Co., Ltd., builders, engineers and contractors; Electrical Manufacturing Company, Ltd.; Harrison and Lamond, Ltd., builders and contractors; Albert Kerr Co., Ltd., hide and skins; Lang Electric Company; Morrison Steel and Wire Co., wire nail factory; National Machinery Company; Pacific Roofing Company, Ltd., patent roofing; Pacific White Lead Company, Ltd., pigments; Paul and Watkins, coal; Pacific Construction Company, Ltd., engineers, contractors; Pacific Sheet Metal Works; Palmer Brothers, machinery; Shaake Company, Ltd., machinery; F. R. Stewart, produce merchants; Vancouver Pickle Company; Vulcan Iron Works, Ltd.; Wallace Foundry, Ltd.; Watson Bros., Ltd., fish curers and packers; Walsh Construction Company, Ltd:, construction engineers; Britannia Wire Rope Company, Ltd.

The building industry in Vancouver, notwithstanding the high price of lumber and other materials, keeps steadily on. During the first 17 days of this year $167,355 worth of work was contracted for. Building permits during 1919 amounted to $3,563,332 (Vancouver centre and Point Grey), a jump of $1,692,701 above the year before. Some of the buildings contracted for for immediate erection are the Martin-Senour Co., Ltd., remodelling, $10,000; Canadian Carbonate, of Montreal,



Vancouver's New Industrial Section

View of some of the industries on Granville Industrial Island, in the heart of Vancouver

new factory, $70,000; Mainland Cold Storage and Ice Company, cold storage plant, $15,000; Nash Motor Company, garage, $30,000; Britannia Wire Rope Company, $40,000 (initial expense); Harrison and Lamond, $15,000; Robson Street Theatre $300,000 (seating capacity 5,000, revolving stage showing six separate wings. Two other large theatres are in the course of construction. Bank of Hamilton, alterations; Royal Bank of Canada, new building; the David Spencer Departmental Store, addition and alterations, $100,000; Clark and Stewart, printers and stationers, new building. The Shaw Baby Carriage, of Vancouver, have erected a factory at Burnaby, a suburb. The C.P.R. will extend their car repair shops at Vancouver to attend to the general overhauling and renovation of passenger equipment formerly done in the Winnipeg and Montreal shops.

Vancouver harbor stands first in Canada for shipping. Through it passes practically all Canada's trade with the Orient. Eventually it is expected that the export of a large part of the prairie grain will flow through this port, and the Dominion Government has already built tremendous elevators for storage purposes at the Government docks.

Three hundred and twenty-one ocean going vessels entered Vancouver harbor during 1919, handling $84,000,000 worth of imports and exports. The 1919 tonnage for Vancouver harbor exceeded 10,000,000 tons, of which two-thirds was coastwise. On an average each ship that come to Vancouver as a port of call during 1919 spent $6,000 while in port, for stores and longshore wages. The ocean going ships of the class of the dollar boats and the smaller C.P.O.S. liners that make Vancouver a home port, leave $40,000 in Vancouver every trip. The big Empress boats average about $90,000 a trip, and, besides this, there is the revenue from the coastwise ships. (These figures do not include the seamen's wages.)

Another Canadian Pacific Railway pier is commenced immediately in Vancouver, to be known as Pier "B.C.," length 1,100 feet, width 340 feet. A second Government pier, to be completed before the end of 1921, will be built into Burrard Inlet, length 1,070 feet and 1,200 feet, and width 340 feet, the difference in length being caused by the contour of the shore line.

Wooden ships were built in Vancouver yards during 1919 comprising, in all, 100,300 tons. Forty of the ships were for France; three for Norway; two for Greece; and one a B.C. marine steamer. More ships are under way.

Catching and packing salmon and other fish (herring being a recently begun industry) in and about Vancouver and further north is one of Vancouver's special industries, and the three-year-old whaling business is now conducted on a big scale.

No less in importance to the toll of the sea is the toll of the land. Growers of small fruits in the Fraser Valley, adjoining Vancouver, have organized and systematized their work into a very big asset among Vancouver industries.



Another Glimpse of the Industrial Island

Its rapid development will be appreciated when it is pointed out that in 1917 the district was nothing but a series of mud flats



A Charming Prospect in Victoria

View taken from the grounds of the Parliament Buildings and embracing from right to left, the Empress Hotel, Belmont House and Victoria Post Office

The Charm of Victoria and Vancouver Island

By "ISLANDER"

SITUATED on an excellent harbor at the southern extremity of Vancouver Island, Victoria, the capital of British Columbia, is, indeed, a "City Beautiful," as it is often described by delighted visitors. Fanned by Pacific winds, warmed by the beneficent Japanese current, which is responsible for the mildness of the temperature of the Coast, the climate is the most delightful to be found in Canada; the scenery of the surrounding country superb, and the business opportunities and advantages many.

The local history of Victoria is as picturesque as its natural location. It was established more than half a century ago, when a boundary dispute threatened to end in difficulties between Great Britain and the United States. The Hudson's Bay Company, which had been located in the disputed territory, later ceded to the United States, to make sure of the permanency of its Western headquarters, moved to Victoria, attracted by the strategical position and natural harbor. Great Britain, at the same time, established in the adjacent harbor of Esquimalt her first Pacific naval station.

The political growth of British Columbia centred about Victoria, and it was fitting that the city should have been chosen as the capital when the two Crown colonies which sprang into existence with the settlement of the country united.

Facing the business centre of the city are located the magnificent Parliament Buildings. Patterned after the princely palace of a Nabob of India, the great grey stone pile is a structure of rare architectural beauty.

Not only are the scenery, cosy villas and well-ordered gardens suggestive of the Old Country, but an English atmosphere pervades the whole city. The gnarled oaks, clumps of willows, and gorse covered cliffs complete the picture and give justification to the oft-repeated description, "A Little Bit of Old England on the Shores of the Pacific."

Its geographical location makes the city a point of commercial and industrial importance. The business centre of Vancouver Island, Victoria, enjoys a large volume of trade from the numerous smaller communities to the north, and from the development of the natural resources of the great island which parallels the mainland coast for a distance of 285 miles. Its breadth averages sixty miles. On the map of the trade countries of the Pacific, Victoria assumes a real importance, for it is the first port of call for the big cargo and passenger steamers from the Orient, Australia and New Zealand.

For a long time the argument was advanced that its insular position would prevent the city from ever becoming the location or distributing point for manufacturing plants. The fallacy of this contention has already been proven, while there is every prospect for a great development in different lines of industry. Vancouver Island is possessed of a wonderful store of natural resources. Its shores are covered with heavy stands of timber, its hills have already yielded rich returns in minerals, while great coal fields have for decades supplied domestic and export trade. The fisheries of both coasts are extremely profitable and the agricultural areas are among the best in the Province. With such a hinterland, Victoria is justified in being optimistic.

Railway car ferries operate from Vancouver across the Gulf of Georgia delivering freights at terminal rates, thus overcoming what might have proved to be a serious barrier to the progress and business development of the city.

Already there are many important factories located in and about the city. Included in the list are, two cement works at Tod Inlet, where 5,000 barrels of cement are manufactured daily; three brick works, two chemical works, five box factories, one stove, range and furnace factory, eight sheet metal works, three paint factories, one rubber roofing plant, one clam cannery, one macaroni factory, three rice mills, three coffee and spice mills.

In addition there are ship-building plants, dockyards, saw mills and other large industries.

During the war Victoria became a centre of shipbuilding activities, both steel and wooden vessels being constructed. Work is now proceeding on steel freighters for the Dominion Government.

Victoria's Fine Harbor

Extensive plans are now under way for the expansion of the harbor facilities. A breakwater and Government docks were completed a few months ago, greatly adding to the port accommodation, and it is proposed to construct, near the city, a huge dry dock. A valuable site, known as the Songhee Indian reserve, was purchased from the aborigines a few years ago, and this will be developed into railway terminals for the C.N.R. and C. P. R. lines, both of which have systems on the island. Already there are three marine ways in operation about Victoria.

The city with its suburbs comprises 8,692 acres. It has a population estimated at nearly 70,000. There are 132 miles of concrete sidewalks, and 65½ miles of boulevards, 77½ miles of unpaved streets; 135 miles of water mains, 30.43 miles of street railway tracks.

The drive from Victoria North to Nanaimo and then across the island to Port Alberni, is one of the most beautiful in British Columbia. It is an attraction that annually draws many hundreds of tourists from Seattle and other United States centres. Passing over the Gorge, the approach to the city's natural park—and through the picturesque suburbs of Victoria, the highway winds across Langford Plains and upwards, twisting and turning, over Malahat Mountain. At places the roadway has been blasted in the hill which falls away into the blue waters of Saanich Inlet many hundreds of feet below. A wonderful view of the scenic beauties of this reach of the sea are obtained before the Summit has been passed and the descent is commenced.

Through a wooded country where settlers are fast establishing comfortable homes and profitable homes, the road descends to Shawnigan Lake, a spot much favored by sportsmen and summer campers. Continuing, it leads through rich agricultural lands to the Town of Duncan.

This little community has even a more distinctive English atmosphere than has Victoria. The farm owners who settled this desirable locality many years ago, were mostly from good English homes, and they have preserved in the community the suggestion of the land of their nativity. Duncan is the centre of a fertile and productive valley, and enjoys a good measure of trade. One of the best examples of a co-operative creamery can be seen at Duncan, its products being of such a quality that the operators cannot supply the demand for them.

From this thriving little centre, the Island Highway traverses the Westholme district dotted with well developed farms, past Mt. Sicker, where some years ago copper-gold properties were extensively worked, and where there is every evidence of a revival in mining.

The first glimpse of salt water since leaving Saanich Inlet is obtained when Chemainus is reached. This is the little town which largely depends for its existence on the big mill operated by the Victoria Lumber Manufacturing Co. This mill was at one time rated as being the largest of its kind in the world. It is capable of tremendous production, and great cargo ships may be seen at the company's wharves loading British Columbia timber for the four quarters of the globe. Considerable trade is done in Chemainus with the farmers who work the land in the vicinity of the town.

Seven miles distant from Chemainus is Ladysmith, situated on one of the best harbors in British Columbia. This city, of 4,000 inhabitants, may be said to be on the fringe of the Vancouver Island coal areas. It is the shipping point for the Canadian Collieries (Dunsmuir) Company, Limited, which operates mines twelve miles away at Extension, and also for the Granby Mining Company's collieries at Cassidy's.

Ladysmith, a Summer Resort

The harbor view from Ladysmith is entrancing, and it is fast becoming popular as a summer resort, the crescent-shaped beach, carpeted with powdered sea shells and screened by small wooded islands opposite to the town, affording an excellent camping ground and vacation centre.

In addition to being the shipping point of the coal mines in the district and the home of the miners who travel to and from Extension by train, the town boasts a large smelter and

(*Continued on page* 156.)



On Vancouver Island's Famous Highway

This is a scene on the Malahat Drive near Victoria, which forms part of a fine motor road extending from Victoria to Nanaimo



View of Part of the Industrial Section of New Westminster

The Industrial Importance of New Westminster

By R. A. MCLELLAN

INDUSTRIALLY the City of New Westminster, on the banks of the historic Fraser River, has always been firmly founded on the sound economic principle of exploiting the natural resources of the country, not by the export of these resources in their raw state, but by their manufacture into the finished article. In earlier days, it canned the world-famous sockeye salmon, and it still cans to the limit of a depleted supply. It is, of course, the market centre for the greatest farming district of the lower mainland, the Fraser Valley, but the purpose of this article is not to deal with that phase of the city's activities, except in so far as they have created industries. Now the industrial life of New Westminster is based on another great natural source of wealth, the timber of British Columbia forests; and the principal industry is the manufacture of lumber and of lumber products. The lumber industry of the lower mainland is destined more and more to concentrate on the Fraser River, for reasons that will be dealt with later. As long as there is timber to cut on tidewater, and men shelter in houses built of lumber, so long will lumbering be one of the great basic industries of this community. But there is also good ground for the hope that side by side with lumbering there will grow up here the great iron industry, which must eventually come from British Columbia's ore wealth.

The people of New Westminster have never been prone to advertise. For this reason, although the name of Vancouver is known all over this Dominion, relatively few people know that its smaller neighbor is already a sound, well-established industrial community, and offers for certain forms of manufacturing the greatest advantages to be found anywhere in British Columbia. But of that, more anon.

With a population of perhaps 18,000 New Westminster and its environs in 1919 exported a really respectable quantity of lumber and lumber products. Four plants alone cut 154,000,000 feet of lumber, which was despatched to all parts of the world. The same four plants in that year paid out approximately a million and a half dollars in wages. This sum, however, represents more than the work done in the sawmills, for some of these plants produce also shingles, boxes, and other manufactured articles. The production of shingles probably ran into the billions.

The biggest lumber plant in the world is conceded to be that of the Canadian Western Lumber Company, which is located in a self-contained community, Fraser Mills, adjoining New Westminster on the east. Within the city limits are the plants of the Brunette Sawmills, the Small-Bucklin Lumber Company, and the Westminster Mill Company. All

(*Continued on page* 154.)



New Westminster from the Fraser River Bridge

Labor's Requests and Government's Answer

The Various Subjects Dealt With by the Trades and Labor Congress of Canada in Its Interview With the Government and the Reply of the Acting Prime Minister to the Representations of the Interviewers

FOR the information of the membership, and also as matter of record, there is published on this and the following pages the summary of representations submitted to the Government by the Executive Council of the Trades and Labor Congress of Canada, on the occasion of their annual interview with the members of the Cabinet. This took place on January 8 last. It is followed by the reply of the acting Prime Minister, which appears in the form of a letter to the Secretary of the Congress, dated March 4.

Labor's Representations

To the Premier
and Members of the Dominion Cabinet:

Honorable Sirs:

During the years of the war the Dominion Government enacted very little labor or social legislation. The declarations in the labor sections of the Peace Treaty; the report of the Industrial Relations Commission, which investigated conditions throughout the Dominion last May and June; the recommendations of the National Conference of Employers, Employees, etc., held in Ottawa in September last, and the findings of the International Labor Conference recently held in Washington, all emphasize the need for immediate action in this direction.

The Trades and Labor Congress of Canada, at its 35th annual convention, held in Hamilton, September 22nd-27th, 1919, and at which about nine hundred and fifty delegates were in attendance, reached many important decisions reflecting the opinions of the workers throughout the entire Dominion as to the imperative necessity for enacting new legislation and amending existing legislation.

Extended summaries have been prepared relative to some of the outstanding legislation affecting labor. Other requests are submitted in condensed form, mention being made of the number of the resolution and the page in the proceedings of the Trades and Labor Congress Convention (copy of which is enclosed) on which the full text can be found.

Now that peace has been finally established, we look forward confidently to the requests being granted, which we herewith respectfully submit on behalf of the Trades and Labor Congress of Canada.

TOM MOORE, *President.*
ARTHUR MARTEL, *Vice-President.*
H. J. HALFORD, *Vice-President.*
A. MCANDREW, *Vice-President.*
P. M. DRAPER, *Secretary-Treasurer.*

INCREASE AND USES OF MILITARY FORCES

Now that the war, which was to end all wars, has been won, we regret to note that steps were taken last year to increase the permanent military forces of Canada from five thousand to ten thousand men. Coincident with this action, the jurisdiction of the Royal North-West Mounted Police was extended to other older settled provinces of Canada and its personnel largely augmented.

Reports reached the Executive of the Trades and Labor Congress of the bringing of military forces into districts where labor disputes were existing.

These actions are strongly protested, and the tendency towards building up Canada during peace times as a military power is considered as detrimental to the development of this country along democratic lines, and liable to lead to unnecessary infringement and curtailing of the rightful liberties of its citizens.

We ask, therefore, that steps be taken to relieve the country of as much of this burden as can properly be done and the non-military policy of pre-war times re-established as soon as possible.

ORDERS IN COUNCIL AND AMENDMENTS TO CRIMINAL CODE

We express our satisfaction that the repeated requests of the organized workers have been heeded and the restrictions upon freedom of speech and press have been removed to a large extent by the repeal of all Orders in Council dealing with these matters. It is with regret, however, we again have to draw to your attention that the amendments, passed during the last regular session of Parliament to the Criminal Code incorporated many of the provisions of the Orders in Council above referred to and make possible prosecutions and infliction of heavy penalties for possessing certain literature and attending meetings and committing other innocent acts, which would not be dangerous to the general peace of the country.

With the country now on a piece basis, we ask that immediate consideration be given to our request for the repeal of the amendments to the Criminal Code, here referred to, believing that the law, as it previously existed, is sufficient to maintain law and order.

IMMIGRATION

The whole question of immigration is one in which organized labor has continually taken a keen interest. Many requests for measures of protection against indiscriminate admittance of emigrants to this country have from time to time been presented. Amongst these recommendations are:

(*a*) The appointment of a representative of the organized workers, along with others, on a Central Empire Board. (See page 45, Congress Proceedings, 1919.)

(*b*) The necessity of revision of the present method of admittance of Orientals, by either total exclusion or international arrangement, limiting the number to one per thousand of the population.

(*c*) The elimination of any system whatever of bonusing for the introduction of industrial workers.

The adoption of a literacy test is highly approved, as is also the formation of a National Council to control the immigration of women emigrants for domestic service, etc., and the representation provided thereon for returned soldiers and organized labor. Our co-operation to make this a success is sincerely promised.

Strong protests have been lodged during the past year against the amendments to the Immigration Act incorporated in Bill 03, and some in Bill 52, especially the amendments which make possible the deportation of British-born subjects after having fulfilled the provisions of the Act giving them domicile as Canadian citizens. The repeal of these sections are strongly urged.

Request is made that the proper authorities be asked to intercede with the United States immigration authorities in order that Canadian theatrical mechanics entering the United States be given the same consideration as American theatrical mechanics coming into Canada. (Resolution 15, page 138, Congress Proceedings, 1919.)

RIGHT TO ORGANIZE

The right of workers of all grades to free association for their own protection has been made the subject of important declarations during the past year. The Treaty of Peace (Paris), Article 2, says:—"Employers and workers should be allowed the right of association for all lawful purposes." The Industrial Relations (Mathers) Commission makes a similar recommendation. This was again endorsed at the National Industrial Conference by both employers and employees. (Page 221.)

It is regrettable to note, therefore, that the Dominion Government have passed legislation making illegal the right to organize by many of their own employees (Dominion Police, many of whom are merely watchmen), and that other public bodies have enforced regulations abridging this right to organize of their employees, and private employees are from time to time emulating their example and endeavoring to prevent organization by discharging and otherwise discriminating against employees who do not organize.

We urgently call your attention to the need for legislation which would make such acts against workers illegal and

action which will restore to all workers the absolute right of organization. (See page 188, Congress Proceedings re police.)

COLLECTIVE BARGAINING

The acceptance of this principle should be given all possible encouragement in order to lessen the time lost by industrial disputes. We would draw your attention to the findings of the Mathers Industrial Relations Commission on this subject and also the representations made by the workers at the National Industrial Conference based upon these findings and ask that, in harmony with recommendations commonly accepted at the National Industrial Conference, that the Government institute in its own departments, wherever practicable, this principle and undertake the initiative in establishing councils in industries, recognizing trade unions as the basis of representation. These measures, we feel sure, will assist materially in bringing about the more general adoption of the principle of collective bargaining.

EIGHT HOUR DAY AND FORTY FOUR WEEK

We request legislation providing for a maximum work day of eight hours and a maximum work week of forty-four hours, and the establishing of a minimum wage adequate to insure a fair standard of living. In presenting this we wish to briefly review as follows:

The efforts to establish this shorter work day and week and an adequate wage have been the most fruitful cause of strikes.

The justice of the claim for a maximum eight-hour day is recognized in the Treaty of Peace, to which Canada is a signatory.

The Washington Conference (League of Nations, Labor Section,) almost unanimously adopted a draft convention declaring for the universal acceptance of the principle of eight-hour maximum day as a minimum condition in all except a few Oriental countries.

Canada is more fortunately placed than many other countries as regards raw material, etc., for her industries and therefore is able to adopt more than the scant minimum provided in the general convention, and we therefore ask for the half day holiday on one day of the six, making a forty-four-hour week.

Most of the Central European countries, including those most devastated by war, have already established laws providing variously for the forty-eight-hour week, the maximum eight-hour day and in some cases the forty-five-hour week is the legal maximum. The countries referred to include France, Belgium, Italy, Germany, Czecho-Slovakia, the Netherlands, Sweden, etc., whilst others, including Great Britain, are committed to legislation which is now pending.

Reports issued to the National Conference, Ottawa, by the Minister of Labor, showed nearly fifty per cent. of Canadian workers in industry already enjoy the eight-hour day or less and a great proportion five and a half day week or less.

The short work day is most generally established in Canada where conditions are most unfavorable, that is in the building industry, which has a limited season. In the Western Provinces, where industrial development is smaller and has to meet heavy costs of transportation, etc.

Employers and workers are agreed on the necessity of uniform legislation on this matter throughout the Dominion.

The cost of living is now only barely met in better paid trades by present wages, and for that reason we ask consideration of provision for protection against reduction in aggregate wages by the introduction of the eight-hour day, which would leave them below the proper standard of existence.

TECHNICAL EDUCATION

On this subject the report of the Congress is:

"It is noted with pleasure that the Dominion Government have decided to appropriate certain sums of money for the purpose of providing technical education, and desire to add the suggestion that both the Dominion and Provincial Governments should spend more money on this work."—(See page 159, Congress Proceedings, 1919.)

CO-OPERATIVE LEGISLATION

The prevailing high cost of foodstuffs and other necessities of living demand radical changes in the method of distribution throughout this country. As a means to this end, the co-operative movement has proven, in other countries, to be of inestimable value; we therefore request that all possible assistance and encouragement be given by your Government to the formation and operation of co-operative societies throughout the Dominion and that legislation making easy the incorporation of such societies be enacted. (See Resolution 3, page 218, Congress Proceedings, 1919.)

REGISTRATION OF UNION LABELS

This subject has been frequently submitted in subsequent years and we again reiterate our request for legislation granting to trade unions the right of protecting their union labels and emblems from infringement. Reference to this is made in President's report, page 127, Congress Proceedings, 1919.

INDUSTRIAL DISPUTES ACT

During the past years, the Trades and Labor Congress have requested the repeal of this Act. The compulsory clauses in this Act have been shown time and again to be generally impossible of enforcement, and the Government, whilst refusing to repeal them, have nevertheless refrained from enforcing them. This attitude brings about a disrespect for the law and is undesirable. The other sections of the Act, owing largely to the growing industrial importance of widely scattered sections of Canada, are becoming more difficult to administer promptly and effectively. Some provinces are also instituting machinery for the settlement of industrial disputes, and, in view of all these circumstances, we suggested that the time has arrived for an entire revision of the machinery of investigation and arbitration. The Congress stands ready to participate in a conference to undertake this work in order that legislation may be devised to provide for quick and satisfactory settlement of disputes.

Decisions rendered that the Act does not apply to public-owned utilities, whilst being compulsory on private-owned utilities of identically the same nature, causes discontent and confusion amongst the workers concerned, and we, therefore, request that pending change and acquiescence with the request made above, that the Act be made applicable to all workers named in the Act, whether employed by a private company or a public authority or a Government department.

HEALTH REGULATIONS FOR PAINTERS

Last year a resolution was presented asking for compulsory labelling of receptacles containing white lead, etc. This is again reiterated.

A further resolution presented to you last year dealt with the denaturing of alcohol, thus rendering it less injurious to men who inhale the fumes. This is reiterated in resolution 82, page 84, Congress Proceedings, 1919.

PROPORTIONAL REPRESENTATION AND OTHER AMENDMENTS TO ELECTION ACT

This subject has been presented by representatives of organized labor on subsequent occasions. The adoption of this measure is reported by the Mathers Commission on Industrial Relations, paragraph 68. It was later made the subject of debate at the National Industrial Conference (Ottawa, September 15th to 20th, 1919,) and received the unanimous approval of the employers, employees and the public groups. Much information as to this measure is furnished on pages 168 to 178, National Industrial Conference Report, 1919. The definite request of labor is that this measure may be made applicable to all future elections, in the belief that it will assist in establishing confidence in constituted authority.

We further reiterate our previous request that election days should be declared public holidays; or, alternately, the hours of voting should be extended until 8 p.m. in the evening. (See Resolution 5, page 220, Congress Proceedings, 1919.)

CANADA COPYRIGHT ACT

Amendments are sought to the Canada Copyright Act which will give a greater measure of protection to Canadian authors and composers, and, at the same time, encourage the printing of copyright books in Canada. This request is covered by Resolution 13, page 120, Congress Proceedings, 1919.

HOUSING

Attention has been directed to the assistance given to housing by the Dominion Government and Provincial Legislatures. A special report on this subject is found on pages

(*Continued on page* 144.)

Lightning Rods for Factory Protection

A Consideration of the Laws of Science on Which the Practice of Rodding Depends—The Old and the New System of Rodding Buildings Explained—Insurance Rates Reduced Where Buildings Have This Protection.

By PROFESSOR W. H. DAY



A Well-Rodded Factory Building

A MILLION five hundred thousand dollars in round figures was paid out by insurance companies in Canada in 1918 to cover losses to buildings caused by lightning. In the light of this appalling loss, can the subject of lightning rods be regarded as an unimportant one?

Surely it is of great importance and not only so to the agriculturalist, whose barns are so frequently a favorite target for the lightning bolt, but for the manufacturer as well. Factories and mills are often damaged by lightning, the high chimneys and somkestacks being particularly susceptible to stroke. The writer saw one chimney that was fractured from top to bottom in this way and sometimes they are so shattered as to be practically useless thereafter.

Professor Day, who was formerly on the staff of the Ontario Agricultural College, Guelph, is recognized as one of the foremost authorities on lightning rods in Canada. When connected with the College he made an exhaustive study of the subject and proved that the efficiency of the protection on rodded buildings was over 90 per cent. He is now secretary and manager of the Shinn Mfg. Co. of Canada, Limited, lightning prevention experts, Guelph. The following article has been written by him at the special request of the Insurance Committee of the Canadian Manufacturers Association for the information of members.

While engaged as Professor of Physics at the Ontario Agricultural College during the past fifteen years, it was my duty and privilege to make an extended study of lightning rods, first, as to their efficiency, and secondly, as to how the laws of science can best be applied so as to reduce the hazard from lightning to a minimum.

It is almost 170 years since Franklin invented the lightning rod. Yet it is only within the last five years that we have known from compiled data its actual efficiency when properly installed. And the efficiency was first worked out at the Agricultural College for the Province of Ontario. I need not detail how this was done—that is all told in Bulletin 220, issued in 1914, by the Ontario Department of Agriculture, and which is distributed free on request. Suffice it to say that we found the efficiency to be over 90 per cent. in most cases, and sometimes nearly 100 per cent. Since then other investigators, following similar lines, have obtained like results, notably, Professor J. Warren Smith, of Colombus, Ohio, whose investigation included fifteen States of the American Union. The results over the entire field covered by his investigation, showed an average efficiency of 90 per cent. In other words, lightning rods as installed saved $90.00 out of every $100.00 it was possible for them to save!

Why do not rods save the full $100.00? In a word the answer is that many of them are not scientifically installed. in fifteen years' study of this subject I have yet to learn of the first case of a scientifically rodded building being burned. In every case investigated it as been found that the simplest, yet most fundamental laws of the science of electricity have been grossly violated. Let me illustrate. Most ground rods in the past have been run straight down the gable end from the peak to the ground. Let us study this case. When the roof becomes wet it is a conductor because water is a conductor. The lightning does not always strike the highest point. Near Enterprise, about 20 miles north of Napanee, on a certain farm I visited to investigate the case, it struck a low pig-pen located by a high barn, incidentally killing the pigs ,the barn itself being untouched. Now let us return to the building grounded from the peak. Suppose a stroke occurs at the eave or part way between there and the peak. The current will not travel upward to

(*Continued on page* 136.)

Definitions of Foreign Trade Terms Adopted

American Trade Bodies, After a Conference, Agree on Standard Definition of Such Frequently-Used Terms as F.O.B.; C.&F.; C.I.F.; F.A.S., etc. —Much Confusion Might Be Avoided by Recognition of Definitions

Interpretation of the terms, f.o.b., c. and f., c.i.f., f.a.s., etc., so frequently used in commercial transactions, has at times been so diverse that a good deal of confusion has resulted through a misunderstanding of just what is intended. To obviate this difficulty, and produce a uniformity of use of the terms, a conference was recently held by representatives of a number of trade organizations in the United States, including the National Foreign Trade Council, Chamber of Commerce of the U.S.A., National Association of Manufacturers, American Manufacturers' Export Association, Philadelphia Commercial Museum, American Exporters' and Importers' Association, Chamber of Commerce of the State of New York, New York Produce Exchange, and New York Merchants' Association. The conference finally adopted what is termed the American Foreign Trade Definitions, which cover the terms and conditions of sale, particularly on export shipments.

As members of the C.M.A. will doubtless be interested in this standardization of terms, the definitions of the conference are reproduced herewith:

As the most certain means of insuring unmistakable clarity in terms and conditions of sale, the conference voted to recommend to manufacturers and exporters that all use of abbreviated forms of export price quotations be abandoned, and that such terms be written out in full.

The conference recognized, however, that this recommendation is not likely to be accepted generally at once, and therefore, in the hope of effecting a simplification and standardization of American practice, it adopted the following statement of definitions of the abbreviated forms in more common and general use in the export trade: The conference strongly recommends to manufacturers and exporters that wherever abbreviated forms of export quotations are employed the forms herein defined be used, as far as possible, to the exclusion of other forms.

Definitions of Export Quotations

Trere are, in their order, the normal situations on which an export manufacturer or shipper may desire to quote prices. It is understood that unless a particular railroad is specified the property will be delivered to the carrier most conveniently located to the shipper. If the buyer, for the purpose of delivery, or in order to obtain lower transportation charges, desires that the goods be delivered to a carrier further removed from the shipper, and entailing a greater cost than delivery to the carrier most favorably situated, the carrier to which the buyer desires delivery of the goods should be named in the quotation. The terms "cars or lighters," as used herein, is intended to include river, lake, or coastwise ships, canal boats, barges, or other means of transportation, when so specified in the quotation.

1. When the price quoted applies only at inland shipping point and the seller merely undertakes to load the goods on or in cars or lighters furnished by the railroad company serving the industry, or most conveniently located to the industry, without other designation as to routing, the proper term is:

"F.o.b. (named point)."

Under this quotation:

A. Seller must—

(1) Place goods on or in cars or lighters;

(2) Secure railroad bill of lading;

(3) Be responsible for loss and/or damage until goods have been placed in or on cars or lighters at forwarding point and clean bill of lading has been furnished by the railroad company.

B. Buyer must—

(1) Be responsible for loss and/or damage incurred thereafter;

(2) Pay all transportation charges, including taxes, if any;

(3) Handle all subsequent movement of the goods.

2. When the seller quotes a price including transportation charges to the port of exportation without assuming responsibility for the goods after obtaining a clean bill of lading at point of origin, the proper term is:

"F.o.b. (named point) freight prepaid to (named point on the seaboard.)"

Under this quotation:

A. Seller must—

(1) Place goods on or in cars or lighters:

(2) Secure railroad bill of lading;

(3) Pay freight to named port;

(4) Be responsible for loss and/or damage until goods have been placed in or on cars or lighters at forwarding point and clean bill of lading has been furnished by the railroad company.

B. Buyer must—

(1) Be responsible for loss and/or damage incurred thereafter;

(2) Handle all subsequent movement of the goods;

(3) Unload goods from cars;

(4) Transport goods to vessels;

(5) Pay all demurrage and/or storage charges;

(6) Arrange for storage in warehouse or on wharf where necessary.

3. Where the seller wishes to quote a price, from which the buyer may deduct the cost of transportation to a given point on the seaboard, without the seller assuming responsibility for the goods after obtaining a clean bill of lading at point of origin, the proper term is:

"F.o.b. (named point) freight allowed to (named point on the seaboard)."

Under this quotation:

A. Seller must—

(1) Place goods on or in cars or lighters;

(2) Secure railroad bill of lading;

(3) Be responsible for loss and/or damage until goods have been placed in or on cars or lighters at forwarding point, and clean bill of lading has been furnished by the railroad company.

B. Buyer must—

(1) Be responsible for loss and/or damage incurred thereafter;

(2) Pay all transportation charges (buyer is then entitled to deduct from the amount of the invoice the freight paid from primary point to named port):

(3) Handle all subsequent movement of the goods;

(4) Unload goods from cars;

(5) Transport goods to vessel;

(6) Pay all demurrage and/or storage charges;

(7) Arrange for storage in warehouse or on wharf where necessary.

4. The seller may desire to quote a price covering the transportation of the goods to seaboard, assuming responsibility for loss and/or damage up to that point. In this case, the proper term is:

"F.o.b. cars (named point on seaboard)."

Under this quotation:

A. Seller must—

(1) Place goods on or in cars;

(2) Secure railroad bill of lading;

(3) Pay all freight charges from forwarding point to port on seaboard;

(4) Be responsible for loss and/or damage until goods have arrived in or on cars at the named port.

B. Buyer must—

(1) Be responsible for loss and/or damage incurred thereafter;

(2) Unload goods from cars;

(3) Handle all subsequent movement of the goods;

(4) Transport goods to vessel;

(5) Pay all demurrage and/or storage charges;

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Toronto

(6) Arrange for storage in warehouse or on wharf where necessary.

5. It may be that the goods, on which a price is quoted covering the transportation of the goods to the seaboard, constitute less than a carload lot. In this case the proper term is:

"F.o.b. cars (named port), l.c.l."

Under this quotation:

(1) Deliver goods to the initial carrier;

(2) Secure railroad bill of lading;

(3) Pay all freight charges from forwarding point to port on seaboard;

(4) Be responsible for loss and/or damage until goods have arrived on cars at the named port.

B. Buyer must—

(1) Be responsible for loss and/or damage incurred thereafter;

(2) Handle all subsequent movement of the goods;

(3) Accept goods from the carrier;

(4) Transport goods to vessel;

(5) Pay all storage charges;

(6) Arrange for storage in warehouse or on wharf where necessary.

6. Seller may quote a price which will include the expense of transportation of the goods by rail to the seaboard, including lighterage. In this case the proper term is:

"F.o.b. cars (named port), lighterage free."

Under this quotation:

A. Seller must—

(1) Place goods on or in cars;

(2) Secure railroad bill of lading;

(3) Pay all transportation charges to, including lighterage at, the port named:

(4) Be responsible for loss and/or damage until goods have arrived on cars at the named port.

B. Buyer must—

(1) Be responsible for loss and/or damage incurred thereafter;

(2) Handle all subsequent movement of the goods;

(3) Take out the insurance necessary to the safety of the goods after arrival on the cars;

(4) Pay the cost of hoisting goods into vessel where weight of goods is too great for ship's tackle;

(5) Pay all demurrage and other charges, except lighterage charges.

7. The seller may desire to quote a price covering delivery of the goods alongside overseas vessel and within reach of its loading tackle. In this case the proper term is:

"F.a.s. vessel (named port)."

Under this quotation:

A. Seller must—

(1) Transport goods to seaboard;

(2) Store goods in warehouse or on wharf if necessary, unless buyer's obligation includes provision of shipping facilities;

(3) Place goods alongside vessel either in a lighter or on the wharf;

(4) Provide the usual dock or ship's receipt;

(5) Be responsible for loss and/or damage until goods have been delivered alongside the ship or on wharf.

B. Buyer must—

(1) Be responsible for loss and/or damage thereafter, and for insurance;

(2) Handle all subsequent movement of the goods;

(3) Pay cost of hoisting goods into vessel where weight of goods is too great for ship's tackle.

8. The seller may desire to quote a price covering all expenses up to and including delivery of the goods upon the overseas vessel at a named port. In this case the proper term is:

"F.o.b. vessel (named port)."

Under this quotation:

A. Seller must—

(1) Meet all charges incurred in placing goods actually on board the vessel;

(2) Provide the usual dock or ship's receipt;

(3) Be responsible for all loss and/or damage until goods have been placed on board the vessel.

B. Buyer must—

(1) Be responsible for loss and/or damage thereafter;

(2) Handle all subsequent movement of the goods.

9. The seller may be ready to go farther than the delivery of his goods upon the overseas vessel, and be willing to pay transportation to a foreign point of delivery. In this case the proper term is:

"C. and f. (named foreign port)."

Under this quotation:

A. Seller must—

(1) Make freight contract and pay transportation charges sufficient to carry goods to agreed destination;

(2) Deliver to buyer or his agent clean bills of lading to the agreed destination;

(3) Be responsible for loss and/or damage until goods have been delivered alongside the ship and clean ocean bill of lading obtained (seller is not responsible for delivery of goods at destination).

B. Buyer must—

(1) Be responsible for loss and/or damage thereafter and must take out all necessary insurance;

(2) Handle all subsequent movement of the goods;

(3) Take delivery and pay costs of discharge, lighterage, and landing at foreign port of destination in accordance with bill of lading clauses;

(4) Pay foreign customs duties and wharfage charges, if any.

10. The seller may desire to quote a price covering the cost of the goods, the marine insurance on the goods, and all transportation charges to the foreign point of delivery. In this case the proper term is:

"C.i.f. (named foreign port)."

Under this quotation:

A. Seller must—

(1) Make freight contract and pay freight charges sufficient to carry goods to agreed destination;

(2) Take out and pay for necessary marine insurance;

(3) Deliver to buyer or his agent clean bills of lading to the agreed destination and insurance policy and/or negotiable insurance certificate;

(4) Be responsible for loss and/or damage until goods have been delivered alongside the ship, and clean ocean bill of lading and insurance policy and/or negotiable insurance certificate have been delivered to the buyer or his agent. (Seller is not responsible for the delivery of goods at destination nor for payment by the underwriters of insurance claims.)

(5) Provide war-risk insurance, where necessary, for buyer's account.

B. Buyer must—

(1) Be responsible for loss and/or damage thereafter, and must make all claims to which he may be entitled under the insurance directly on the underwriters;

(2) Take delivery and pay costs of discharge, lighterage, and landing at foreign port of destination in accordance with bill-of-lading clauses;

(3) Pay foreign customs duties and wharfage charges, if any.

Explanation of Abbreviations

F.o.b., free on board.
F.a.s., free alongside.
C. and f., cost and freight.
C.i.f., cost, insurance, and freight.
L.c.l., less-than-carload lot.

General Recommendations

In reaching the conclusions set forth in this statement the conference considered the fact that there are in more or less common use by manufacurers in different parts of the United States numerous variations of the abbreviations practically all of which are employed to convey meanings substantially synonymous with those here defined. For instance, there are manufacturers who quote "f.o.b. cars," "f.o.b. works," f.o.b. mill," or "f.o.b. factory," meaning that the seller and buyer have the same responsibilities as those set forth in section 1. The conference considered all those variations and determined to recommend the use of "f.o.b. (named point)," as "f.o.b. Detroit," "f.o.b. Pittsburgh," etc. Of the considerable number of these abbreviations which are used in the United States, the conference felt that the form "f.o.b. (named point)" is most widely used and understood, and therefore should be adopted as the standard of practice.

The chief purpose of the conference is to simplify and standardize American practice, and to that end it urges manufacturers and exporters to cease the use of synonymous abbreviations and quote habitually in the terms here recommended, just as far as these terms will cover the price conditions which it is desired to arrange with the buyer.

Variations of the abbreviations recommended in other sections also are in more or less common use throughout the United States. The recommendations of the conference set forth above apply to them with the same force as to those cited under section 1.

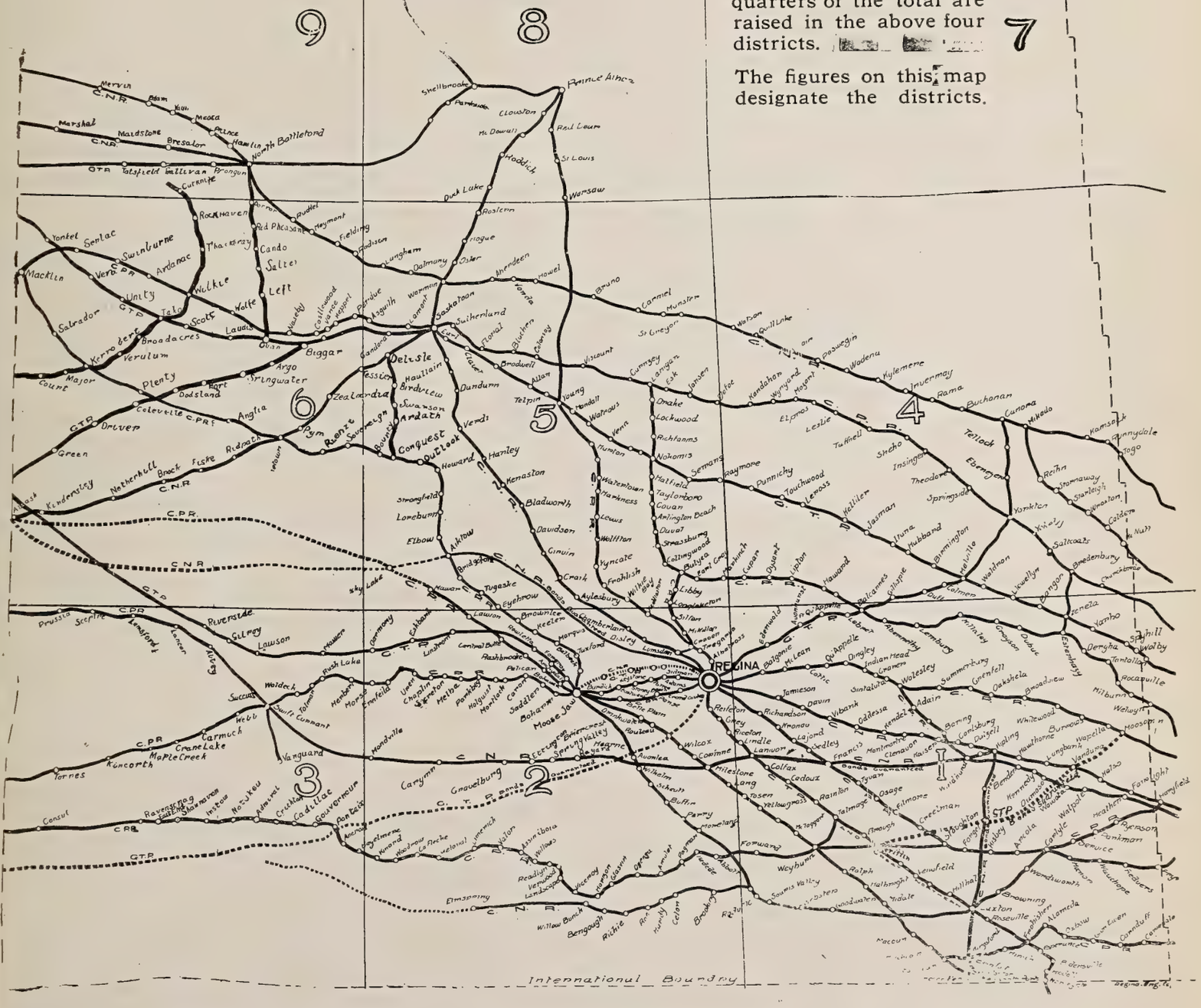
REGINA
Saskatchewan
Canada

1920

Regina serves 2,255 miles of Railway and 250 towns and villages. Population of District 466,666.

In districts Nos. 1, 2, 4 and 5 are two-thirds of the population of the Province, and over two-thirds of the grain of the Province is raised in these four districts. Of the 1,870,123 head of stock in the Province, three-quarters of the total are raised in the above four districts.

The figures on this map designate the districts.



REGINA, the capital city of Saskatchewan is situated on the main line of the Canadian Pacific Railway, Grand Trunk Pacific Railway and Canadian National Railway. It is the principal city between Winnipeg and Calgary, lying 357 miles west of Winnipeg and 483 miles east of Calgary.

REGINA is the largest distributing centre of Western Canada and, as a distributor of farm implements, the greatest in the world, business in this line in one year having reached a total of over $25,000,000.

REGINA is the distributing centre, the commercial centre and the educational centre of this part of Western Canada. Building construction already arranged for, in 1920, amounts to $4,500,000. Every lot in the wholesale area is served with railway tracks; a large portion of the area is still available for building purposes and may be obtained from the City.

For further information apply to L. T. McDONALD, Board of Trade, Regina or Commissioner L. A. THORNTON, City Hall, Regina

Manufacturers and exporters are urged to bear in mind that the confusion and controversies which have arisen have sprung, in part, from the use of an excessive number of abbreviated forms with substantially similar meanings, as well as from the use of abbreviations in a sense different from their original meanings, or in an application not originally given them and different from the sense or application understood by foreign buyers.

In simplified and standardized practice lies the best hope of reducing confusion and avoiding controversy.

The conference urges upon manufacturers and exporters the very great importance at all times of making their intention in whatever quotations they employ so thoroughly clear as to be impossible of misunderstanding or misinterpretation. It is much better to take the time and space at the outset to make the quotation clearly understood than to be compelled in the end to go through vexatious controversy or litigation, which costs not only time and expense but customers as well. Misunderstandings can best be avoided if the seller will formulate a written statement of the general conditions under which his sales are to be made, and will see that the foreign buyer possesses these terms of sale when considering a quotation. The items which may be included in such a statement deal with delivery, delays, partial shipments, shipping instructions, inspection, claims, damage, and payment. If all contingencies are thus covered by carefully considered conditions of sale, disputes will largely be prevented.

The quotation "f.o.b. (named port)," as "f.o.b. New York," "f.o.b. New Orleans," "f.o.b. San Francisco," is often used by inland producers and distributors to mean merely delivery of the goods at railway terminal at the port named.

This abbreviation originated as an export quotation and had no application to inland shipments. It was used only to mean delivery of the goods upon an overseas vessel at the port named. That, in fact, is the meaning universally given to the phrase among foreigners, and is the meaning which the best practice among exporters requires it invariably to have. But because of the confusion which has arisen through the use of that form with a different meaning by inland producers and distributors, and, in the interest of unmistakable clarity, the conference most strongly urges the invariable use by American manufacturers and exporters of the form "f.o.b. vessel (named port)." This adds only one word to the abbreviated form and has the great advantage that it can not be misunderstood. It also avoids the difficulty which might arise among foreigners not always well versed in American geography, through confusing an inland forwarding point with a shipping port at seaboard.

The conference calls attention to the fact that in selling "f.a.s. vessel," manufacturers and exporters should be careful to have their agreements with buyers cover explicitly the question of responsibility for loss after goods have been delivered on the wharf or alongside the vessel, and before they are actually loaded on the ship. There is no generally established practice on this point. The recommendation of the conference in the definitions of responsibility, under section 7, sets up a rule which it is hoped will lead to the establishment of a standard practice.

It is understood that the provision of lighterage covered in several of these recommendations is only within the usual free-lighterage limits of the port, and that where lighterage outside such limits is required it is for buyer's account.

In order to avoid confusion in another particular, attention is called to the care which must be exercised in all cases in making weight quotations. The net ton, the gross ton, and the metric ton, all differ in weight. Similarly, there is a variation in the use of the term "hundredweight," to mean either 100 pounds or 112 pounds. It is, therefore, not sufficient to quote a price per "ton" or "per hundredweight." Instead, the conference recommends the use of the terms "ton of 2,000 pounds," "ton of 2,240 pounds," or "ton of 2,204 pounds," etc., whichever is intended.

It is also important to note that a carload lot in the United States means the quantity of the particular commodity in question necessary to obtain the carload freight rate for transportation on American railways. This quantity varies according to the commodity and also varies in different parts of the country. Certain commodities being more bulky than others, the minimum carload for them is less than for heavier products occupying less space. The load required may range anywhere from 12,000 to 90,000 pounds. Consequently, it is important, when quoting prices applicable to carload lots, to so state and to specify the minimum weight necessary to make a carload lot of the particular commodity for the particular shipment in question.

The conference points out that in quoting "c. and f." or "c.i.f.," manufacturers and exporters moving large quantities of material by one vessel should be careful to ascertain in advance the buyer's capacity to take delivery. This because, under these terms and as a condition of making the freight rate, transportation companies may require a certain rate of discharge per day, and that rate of discharge might be in excess of the buyer's capacity to take delivery. In such event an adjustment with the transportation company would be necessary, which might affect the freight rate, and consequently the price to be quoted.

The conference also strongly urges shippers clearly to understand the provisions of their insurance protection on all foreign sales, irrespective of the general terms used thereon. In almost all cases it should be possible, when making shipments by steamer, to obtain insurance cover, giving full protection from primary shipping point to designated seaport delivery, and/or foreign-port delivery. As ordinary marine insurance under f.p.a. conditions, i.e., free of particular average, gives no protection against deterioration and/or damage to the merchandise itself while in transit, when caused by the recognized hazards attending such risks, shippers should endeavor in all cases to obtain insurance under w.p.a. (s.p.a.) conditions, i.e., with particular average (subject to particular average), when in excess of the customary franchise of 3 per cent. to 5 per cent. Under such form of insurance underwriters will be called upon to pay claims for damages when these exceed the stipulated franchise.

The conference points out that inasmuch as fees for consular invoices and similar items are arbitrary charges fixed by foreign Governments, they are not included in the terms of c. and f. or c.i.f. quotations, and it is part of the duty of the buyer to meet them.

Finally, the conference strongly recommends, as a most effective measure of simplification, the general practice of quoting for export, as far as possible, either "f.a.s. vessel," "f.o.b. vessel," or "c.i.f." Concentration on this small list, all of which terms are readily understood abroad and are difficult of misinterpretation, will, it is felt, be markedly influential in avoiding confusion and controversy.

The conclusions and definitions set forth above are the recommendations of a conference which was composed of representatives of nine of the great commercial organizations of the United States interested in foreign trade. Not all have as yet the force of law or long-established practice, but it is the hope and expectation of the conference that these recommendations will receive such adherence on the part of American producers and distributors as to make them in fact the standard of American practice. And it is, therefore, expected that in due time they will receive the sanction of legal authority.

Shipment of Eggs

Members are Urged to Co-operate with Express Companies by Packing Eggs Properly

The Express Traffic Association of Canada have issued a circular, No. 96, referring to the requirements of the Express Classification on page 14, item 16, in connection with shipment of eggs in cases. This circular is addressed to the attention of employees, and requires that they adhere to the regulations set forth in the above mentioned item. It is stated the highly perishable and fragile nature of eggs makes it difficult to prevent breakage even with the best of packing, and careless handling in transit only aggravates the matter. It is therefore, necessary that eggs be given the careful handling they require.

The circular then goes on to state the different causes of damage such as breakage, extreme cold, heat, moisture and bad odors. The boys are also directed to refuse any containers which are not in sound condition, and to notify shippers that first-class fillers must be used as well as cushioning material in both the top and bottom of the cases.

All members who are interested in the handling of eggs should assist the express companies in their endeavor to have the goods properly protected and handled while in their care.

THE

Alberta British Columbia Industrial Congress

Under the direction of the ALBERTA INDUSTRIAL DEVELOPMENT ASSOCIATION, and in conjunction with the CANADIAN MANUFACTURERS' TOUR OF CANADA

MEDICINE HAT - -	JUNE 2ND
LETHBRIDGE - -	JUNE 2ND
CALGARY - - - -	JUNE 3RD
EDMONTON - - -	JUNE 4TH AND 5TH
VANCOUVER - - -	JUNE 7TH, 8TH AND 9TH
VICTORIA - - -	JUNE 11TH

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S.S. "War Camp," one of the vessels built for the British Government. Photo shows the vessel just prior to leaving British Columbia on her maiden voyage to Great Britain
Dimensions:—Length 427 ft., beam 54 ft., depth 29 ft. 9 ins. Speed 11½ knots

Track Scale Allowances

Railway Companies Likely to Put New Scale into Effect at an Early Date

The Board of Railway Commissioners on February 24th, 1920, issued General Order No. 283, in connection with track scale allowances. The judgment in connection with this question was reported in INDUSTRIAL CANADA of January, 1920, page 229. The order above referred to is for the purpose of bringing the judgment into effect. No date has been set for the changes ordered, but it is understood the railway companies will put them into effect at an early date.

For the information of our members the following is submitted:—

TRADE SCALE ALLOWANCE..

Comparison of allowances at present named in tariffs of the carriers with those ordered by the Board of Railway Commissioners in General Order No. 283, dated Ottawa, February 24, 1920:

Commodity.	Car.	Maximum Allowances. Present.	Proposed.
Agricultural Implements.			
Machinery	A	x1,000	x650
Stoves	B	x1,500	x650
Vehicles—all kinds (see Note 1).			
Acid, in carboys (see Note 3)	C	1,000	x650
Ashes		(1) 500	Cancelled
		(2) 1,000	Cancelled
Bark	A	(1) (2) 500	Cancelled
	D	(1) 2,500	1,000
		(2) 2,000	1,000
	E	(1) 1,000	1,000
		(2) 500	1,000
Lumber and other forest products not elsewhere provided	A	(1) (2) 500	Cancelled
	B	(1) 1,000	*500
		(2) 500	*500
Perishable Freight	F	1,500	†2,000
	G	2,000	†2,500
Woodpulp (wet)		1,000	Cancelled
General—To cover weight of standards, strips, stakes, supports and temporary racks—does not apply on agricultural implements, machinery, street cars, vehicles, bark	B	500	500
Foreign Matter—Not part of lading, such as snow, ice, manure or refuse in or on cars.	A	Note 2	Note 2
	B		

A—Box or stock cars.
B—Flat or gondola cars.
C—Box or single deck stock cars.
D—Flat or gondola cars with temporary racks.
E—Flat or gondola cars with permanent racks.
F—Box or stock cars lined with lumber by shipper.
G—Box or stock cars lined with lumber by shipper and containing fuel and stove.
(1) December 1st to April 30th.
(2)—May 1st to November 30th.
X—Actual weight but not more than the maximum shown—shipper must certify as to weight on shipping order and bill of lading.
*Actual weight when ascertainable, but not more than maximum shown—shipper must certify as to ascertained weight on shipping order or bill of lading.
†Lumber—actual weight, but not more than 800 ft. board measure at 2½ lbs. per ft. (2,000 lbs.).
Stove and fuel—actual weight, but not more than 500 lbs. in addition to above.
Note 1—Present allowance does not include self-propelled vehicles—proposed allowance will include all kinds.
Note 2—At present allowance for snow, ice, refuse obsorption of moisture is included in weight—allowances under proposed will be an estimated allowance adequate to actual conditions in each case at time of weighing.
Note 3—At present allowance applies only on shipments from points east of Fort William to points west thereof. Proposed allowance will apply between all points in Canada.

From the above, it will be seen that, generally speaking, the new maximum allowance for dunnage will be 500 lbs., or the same as at present; on agricultural implements, machinery, stoves and vehicles, it will be 650 lbs.

In connection with vehicles, it might be pointed out that automobiles and other self-propelling vehicles are not now provided with an allowance. The extension of the allowance to cover such vehicles will be of interest to the automobile industries.

The allowance on bark has been made the straight 1,000 lbs., as against the present varying amount from 500 to 2,500 lbs.

As regards the question of snow, ice and refuse, the maximum allowance is now generally about 500 lbs., whereas under the order it must be the actual amount in each case, but this is to be allowed by the carriers' weighmen.

Steamship Sailings

Proposed Sailings from West St. John, St. John, Halifax and Portland in the Near Future

West St. John to Liverpool

Empress of France, C.P.O.S. Line ..... Ab't Apl. 10
*Canadian Voyageur, Can. Govt. Mer. Marine, Ltd... Ab't Apl. 24
*Sails from St. John.

West St. John to London

Montcalm ..... C.P.O.S.-Furness Line (C.P.O.S.) Ab't Apl. 8
Grampian ..... C.P.O.S.-Furness Line (C.P.O.S.) Ab't Apl. 9
*Canadian Navigator, Can. Govt. Mer. Marine, Ltd... Ab't Apl. 24
*Sails from St. John.

West St. John to Antwerp

Scandinavian ..... C.P.O.S.-Furness Line (C.P.O.S.) Ab't Apl. 16

West St. John to Avonmouth Dock (Bristol)

Sardinian ..... C.P.O.S. Line ..... Ab't Apl. 16

West St. John to Australasian Ports—Melbourne, Sydney, Brisbane, Auckland, Wellington and Dunedin

Ajana ..... New Zealand S.S. Company.... Ab't Apl. 28

St. John to Kingston, Jamaica and Havana, Cuba

Canadian Warrior .. Can. Govt. Mer. Marine, Ltd.... Ab't Apl. 23

Halifax to Havana, Cuba

Canadian Trader ... Can. Govt. Mer. Marine, Ltd.... Ab't Apl. 24

Halifax to Barbados, Trinidad and Demerara

Canadian Gunner .. Can. Govt. Mer. Marine, Ltd.... Ab't Apl. 10

Halifax to Santiago (Cuba) and Kings (Jamaica)

Watuka ..... Pickford & Black ..... Ab't Apl. 10

Portland to Liverpool

Canada ..... White Star-Dominion Line.... Ab't Apl. 17

Portland to London

Ardgoil ..... Cunard Line ..... Ab't Apl. 10

Portland to Glasgow

Cassandra ..... Anchor-Donaldson Line..... Ab't Apl. 9

Portland to Avonmouth

Cornishman ..... Dominion Line ..... Ab't Apl. 17

West St. John to Belfast and Dublin

Dunaff Head ..... Head Line ..... Ab't Apl. 10

West St. John to Montevideo, Buenos Ayres and Rosario (South America)

A steamer ..... Houston Lines ..... Ab't Apl. 20

West St. John to South Africa—Cape Town, Port Elizabeth, East London, Durban and Delagoa Bay

Benguela ..... Elder-Dempster Line ..... Ab't Apl. 20

Halifax to Glasgow

Canadian Aviator .. Can. Govt. Mer. Marine, Ltd.... Ab't Apl. 24

Halifax to Buenos Ayres, Argentine (Calling at Pernambuco)

Canadian Stigneur.. Can. Govt. Mer. Marine, Ltd... Ab't Apl. 30

Demurrage

Association's Application in Connection with the Average Agreement Has Been Dismissed

The Assistant Chief Commissioner Board of Railway Commissioners, Ottawa, on January 26th, completed a judgment dealing with the "average agreement" in connection with the application of the Canadian Manufacturers' Association for an order directing the extension of the Canadian Car Demurrage Rules for the purpose of including this agreement.

On February 6th this judgment was concurred to by the Chief Commissioner and Commissioners Goodeve, Boyce and Rutherford, and was sent to the Association on February 27th.

YARROWS LTD.

VICTORIA, B.C., CANADA

Associated with YARROW & CO. LTD., Glasgow, Scotland

SHIPBUILDERS SHIP REPAIRERS ENGINEERS

IRON AND BRASS FOUNDERS

Marine Railway—300 ft. x 52 ft., 3,000 tons D.W. capacity Graving Dock—480 ft. x 65 ft.

GRANITE

The Rock of Ages

VANCOUVER GRANITE CO., LIMITED

PRODUCERS OF

Nelson Island Grey Granite

The Standard Granite of the Pacific Coast.

Largely used in Monumental work.

Quarries - Nelson Island, B.C.

Head Office and Yards Vancouver, B.C.

Position as General or Works Manager

THE advertiser is a Canadian, at present satisfactorily connected with a Company (as General Works Manager) employing 2,100 men in two widely separated plants. For personal and family reasons desires to return to Canada.

Has had many years experience in charge of design and manufacturing of gas engines (marine and stationary) oil engines, tractors, auto parts of all kinds, boilers and engines (marine and stationary), structural and platework, contractors' equipment and dredges, etc.

Thoroughly experienced in all metal working processes, and the management of foundries producing steel, grey iron and brass castings, drop and hammer forging shops, machine shops, pattern and woodworking departments, metal heat treating departments, also the management of engineering and drafting departments.

Understands sales and general business.

Very successful in organizing and planning for profitable production; thoroughly understands the control of indirect costs and the making of budgets for same.

45 years of age and in good health.

Seeking connection with a worth-while concern which will pay a good salary for profitable operation of its plant.

Position wanted is that of General Manager or Works Manager and must be permanent.

Prefers location in or near Toronto.

Write Box 200, Industrial Canada, Toronto.



Our Modern Plant is fully equipped to supply castings of every description in

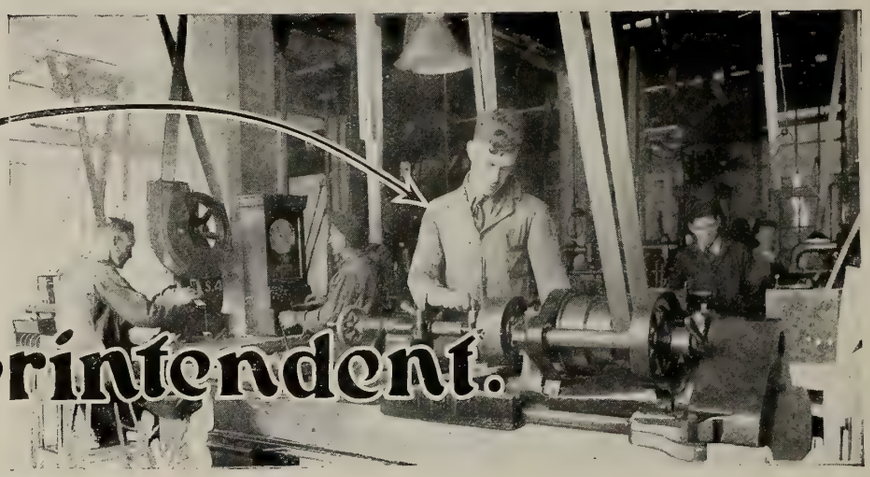
MILD STEEL
CHROME
CHROME NICKEL
CARBON
MANGANDIMIAND
VANADIUM

Let us quote you

Hull Iron & Steel Foundries, Ltd.

HULL QUEBEC

Here is your future Superintendent.



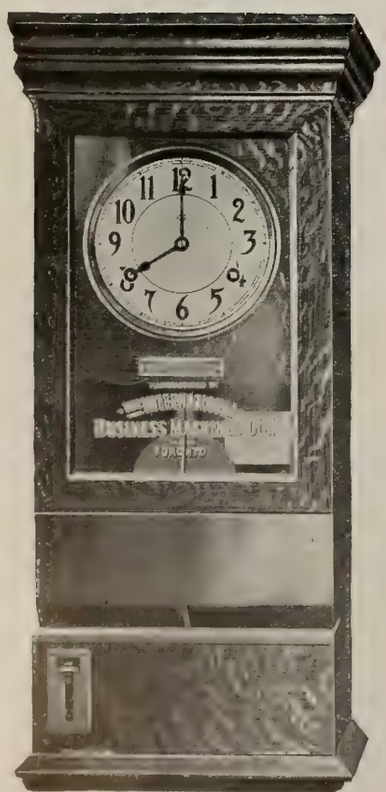
Here is the Machine that helps you find Him.

HE'S one of your producers! The "International" Job Time Recorder finds him for you. There are other good workers, and there are also non-producers.

¶ It is production you are after and this International Job Time Recorder will show you exactly where you are getting it. Automatically printed on each Job Card is the exact starting and stopping time on each and every operation.

¶ The International unerringly records the points of high and excessive production costs through every stage of manufacture—indicates the inefficient workmen, the non-producers and helps you clear out the "deadwood." Best of all, it ***shows the men who are producing*** and develops them by stirring up lively competition. You can ***watch them grow,*** and out of this group who take an interest in your business you'll pick your "Job Bosses" and, when the time comes, your Assistant Foremen.

Why keep your modern machinery hitched to an ancient time and cost recording system when an International Job Recorder will help you "jump" production records to the peak?



International Job Time Recorder

There's an International for every business. Let us send you our literature.

International Business Machines Company, Limited

Time Recorder Division

FRANK E. MUTTON, Vice-President and General Manager

Head Office and Factory: Campbell Ave., Toronto, Ont.

Branches in all Principal Cities

(Also makers of Hollerith Electric Tabulators and Dayton Computing Scales)



Labor time is the most costly raw material you buy

What kind of a jolt would you give your bookkeeping department if you found they did not have a real, efficient, practical, infallible check on the materials you buy?

Why not have just exactly that kind of a check on the labor time you buy? Why stick to an old-fashioned, cumbersome time-keeping system dependent on the "human element" for its efficiency, impartiality and reliability?

This is the age of machines. Check your labor time purchases by a machine. Ninety-eight per cent. of the world's successful firms do so, and we've supplied ninety-five per cent. of ***them.***

We supply time-keeping systems for any and every purpose or business

International Business Machines Company Limited

Time Recorder Division

Head Office and Factory
Campbell Ave., Toronto, Ont.

FRANK E. MUTTON
Vice-President and General Manager

Branches in all Principal Cities

(Also makers of Hollerith Electric Tabulators and Dayton Computing Scales)

The judgment dismisses our application on the following grounds:—

1. That the consignee has no right to an allowance for any time between the actual time used in unloading cars, and the free time period of 48 hours.

2. That this plan (average agreement) would be discriminatory as between different sections of the shipping public; in other words, the larger manufacturer or shipper would have an advantage over a smaller manufacturer or shipper.

3. The adoption of the plan would not increase the car supply available at any given time.

In support of the first point, numerous cases have been cited, particularly English Law.

The Royal Bank of Canada announces the opening of branches at Santos and Sao Paulo, Brazil. With a branch already located at Rio de Janerio, this makes three branches now doing business in Brazil.

EXCELLENT FACTORY SITE

FOR SALE OR LEASE

Location.—Live town on lake front close to Toronto, with fine harbors, 3 transcontinental railways and 7,000 population. **Power.**—250 electric horse-power, fully developed, including cement dam, water-wheels, large brick power house and other buildings with abundant additional hydro electric power available if desired. **Labor.**—Supply will be found most satisfactory, both male and female. This is a splendid opportunity for either a new industry or branch of existing industry requiring immediate supply of power and labor and first-class shipping facilities. Special inducements offered.—Address Box 100, Industrial Canada, 1301 Bank of Hamilton Building, Toronto.



W. C. Macdonald, Reg'd

Incorporated

MONTREAL - CANADA

Prospects for Industries

Some of the possibilities for future industrial developments in British Columbia

Mr. W. C. Oliver, of the Douglas Fir Turpentine Company, California, is advocating a new industry for British Columbia. Wonderful possibilities are connected with it. The matter has been brought before the Provincial Government. Mr. Oliver describes the Douglas fir as the most valuable economic timber in the world. It can be made to produce hundreds of millions of dollars worth of turpentine, resin and other by-products, while, at the same time, the timber growth of the tree will be enormously accelerated. His list of more than 100 staple commercial articles that can be manufactured from the by-products of the forest opens up an amazing vista—from the fibre silk to the Japanese silk (so much used in hosiery), to linoleum, resins and acids.

Sir George Bury, on a recent return from the Whalen Pulp Mills, up the Coast, was enthusiastic about the manufacture of underwear from pulp fibre.

Professor John Davidson, Botanist of the British Columbia University, Vancouver, has discovered a certain kind of Douglas fir tree that grows in the Dry Belt of British Columbia, whose leaves exude a fine white sugar in masses of one-quarter of an inch to two inches in thickness. Indians have known of and used this sugar for centuries, and there has been no time when grizzly bears did not feast upon it. Professor Davidson says its use in medicine and chemistry may be very important, and now remains only to be brought out by chemist investigators.

Palladium has been found in a copper mine discovered up the coast from Vancouver. Being one of the richest known metals, this discovery will add greatly to the wealth of British Columbia.

An iron, equal to the best Norwegian metal, is now being produced in British Columbia.

British Columbia magnite ore is now being transported 400 miles by water to Seattle, and is there smelted successfully in an electric smelter in less than two hours' time. A company is being formed in Vancouver to do similar work.

During the war a process of refining zinc was discovered and worked out at the Trail smelter, B.C., and many trainloads of zinc slabs were shipped by rail to Vancouver and over-the-world by steamships.

Had Many Interests

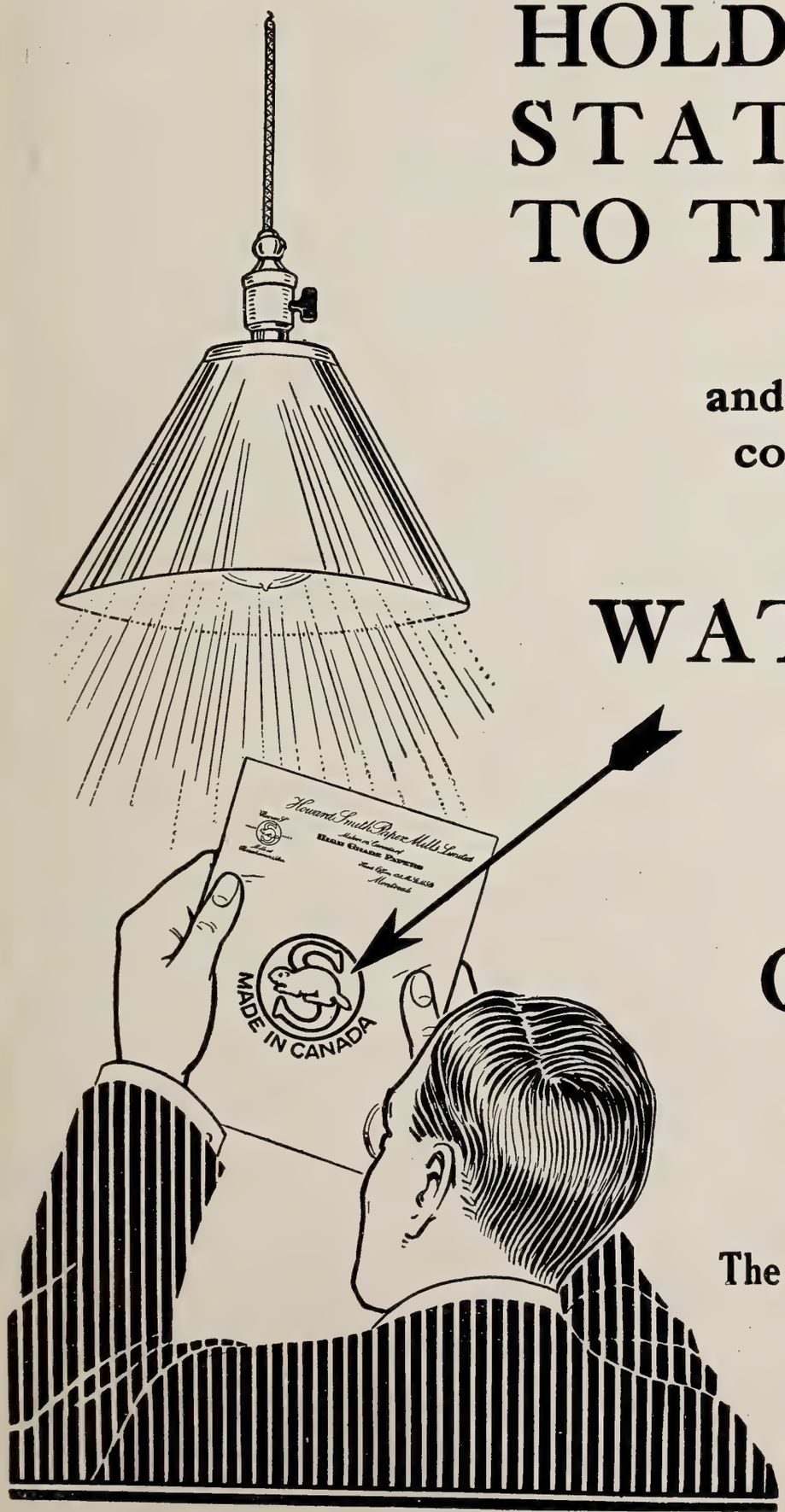
Late John Whyte, of Stratford, Took Foremost Part in Industrial Life of City

John Whyte, president of the Whyte Packing Co., Stratford, whose death after a long period of ill-health occurred on March 14, was an honored citizen with widespread business interests. A native of Scotland, he began business life in the meat business in Mitchell, being associated with his father. On the death of the latter, he removed the industry to Stratford, erecting the big plant of the Whyte Packing Co. in 1899. He was also interested in the Stratford Brass Co., Macdonald Thresher Co., Avon Knit Mills and other local industries, besides taking an active share in the work of the Board of Trade, Board of Health, Hospital Board and Children's Aid Society.

PATENT FOR SALE

Patent for sale on Lamp Chimney Holder. Simple and inexpensive to manufacture. Will sell outright for cash or sell right to manufacture in Canada. Stays on burner when chimney is pulled off, but may be removed or put on any time. Miss Amanda Halverson, Delavan, Minn.

HOLD UP YOUR STATIONERY TO THE LIGHT



and see that it contains this

WATERMARK

It is your guarantee for

QUALITY

-Made-in-Canada—

BY

The Howard Smith Paper Mills
LIMITED

138 McGill St., MONTREAL

MILLS AT

BEAUHARNOIS, QUE. and
CRABTREE MILLS, QUE.



BANK OF HAMILTON

48th Annual Statement

28th FEBRUARY, 1920

BOARD OF DIRECTORS

SIR JOHN HENDRIE, K.C.M.G., C.V.O., President.
CYRUS A BIRGE, Vice-President.

C. C. DALTON
I. PITBLADO, K.C.
ROBT. HOBSON
J. TURNBULL.
W. E. PHIN
W. A. WOOD

F. E. KILVERT, Western Superintendent.

J. P. BELL, General Manager.

TO THE PUBLIC

LIABILITIES

Notes of the Bank in Circulation		$5,941,901 00
Deposits not bearing interest	$23,692,537 71	
Deposits bearing interest, including interest accrued to date of statement	44,973,167 61	
		68,665,705 32
Balances due to other Banks in Canada		144,690 79
Balances due to Banks and Banking Correspondents in the United Kingdom		82,137 21
Balances due to Banks and Banking Correspondents elsewhere than in Canada and the United Kingdom		591,154 79
Acceptances under Letters of Credit		301,046 96
		$75,726,636 07

TO THE SHAREHOLDERS

Capital Stock paid in	4,000,000 00
Reserve Fund	4,200,000 00
Balance of Profits carried forward	85,249 74
Dividend No. 123, payable 1st March, 1920	119,935 03
Former Dividends unpaid	2,288 50
	$84,134,109 34

ASSETS

Gold and Current Coin	$929,035 84
Dominion Government Notes	8,236,369 00
Deposit in Central Gold Reserves	1,750,000 00
Deposit with the Minister of Finance for the purposes of the Circulation Fund	200,000 00
Notes of other Banks	616,659 00
Cheques on other Banks	2,925,419 17
Balances due by other Banks in Canada	663,515 35
Balances due by Banks and Banking Correspondents elsewhere than in Canada	790,992 55
	$16,111,990 91
Dominion and Provincial Government Securities, not exceeding market value	2,427,615 07
Canadian Municipal Securities, and British, Foreign and Colonial Public Securities other than Canadian	7,485,827 40
Railway and other Bonds, Debentures and Stocks, not exceeding market value	472,316 90
Call and Short Loans (not exceeding thirty days) in Canada, on Bonds, Debentures and Stocks	8,169,905 14
	$34,667,655 42
Other Current Loans and Discounts in Canada (less rebate of interest)	45,318,138 57
Real Estate other than Bank Premises	355,626 26
Overdue Debts, estimated loss provided for	171,096 79
Bank Premises, at not more than cost, less amounts written off	2,808,262 30
Other Assets not included in the foregoing	512,283 04
Liabilities of Customers under Letters of Credit as per Contra	301,046 96
	$84,134,109 34

PROFIT AND LOSS ACCOUNT

Balance at credit of Profit and Loss Account, 28th February, 1919		$85,114 59
Profits for twelve months ended 28th February, 1920, after deducting charges of management, interest accrued on deposits, rebate on current discounts, and making provision for bad and doubtful debts		847,104 86
Premium on New Stock		500,000 00
		$1,432,219 45

APPROPRIATED AS FOLLOWS:

Dividends Nos. 120, 121, 122, 123, at 12 per cent. per annum		469,183 56
To Pension Fund		40,317 96
War Tax on Bank Note Circulation		37,468 19
Transferred to Bank Premises Account		100,000 00
Transferred to Reserve Fund—From Current Profits	$200,000 00	
From Premium on New Stock	500,000 00	
		700,000 00
Balance of Profits carried forward		85,249 74
		$1,432,219 45

RESERVE FUND

Balance 28th February, 1919	$3,500,000 00
Premium on New Stock	500,000 00
Transferred from Profits	200,000 00
	$4,200,000 00

JOHN S. HENDRIE, President.

J. P. BELL, General Manager.

AUDITORS' REPORT

In accordance with the provisions of Sub-sections 19 and 20 of Section 56 of the Bank Act, we report to the Shareholders as follows:

We have examined the above Balance Sheet with the books and vouchers at Head Office and with the certified returns from the Branches, and we have obtained all the information and explanations we have required, and in our opinion the transactions which have come under our notice have been within the powers of the Bank.

We have checked the cash and verified the securities of the Bank at the Chief Office and at several of the principal Branches during the twelve months covered by this statement, as well as on February 28th, 1920, and have found that they agreed with the entries in the books of the Bank with regard thereto.

In our opinion the Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Bank's affairs according to the best of our information and the explanations given us, and as shown by the books of the Bank.

C. S. SCOTT, F.C.A., of C. S. Scott & Co.
E. S. READ, C.A., of George A. Touche & Co.
} AUDITORS.

Hamilton, 15th March, 1920.

OFFICE AND FINANCE

The Philosophy of Thrift

By F. W. HARDING

Part I
Methods of Thrift

THRIFT is much written about and often talked of, but very little if anything is said as to a proper method of practising it. The interpretation of the idea ranges from the one who saves every penny to the one who occasionally saves.

One man conceives the idea that thrift means the laying aside of every penny, the denying of himself and those dependent upon him of everything that makes life worth living. He would spend money for only the barest and plainest food and clothing, shriveling his very soul, and stunting the spiritual life of himself and his family. He is rarely a person worth meeting, for he probably denies himself good reading, and has not developed mentally. His apparel is such as to cause him to stay at home and literally bury himself.

Another has the happy-go-lucky idea of saving a little now and then, and somewhere between these two extremes is the level-headed idea of methodical living and saving.

The first example, if followed by all, would at once plunge the country into the direst of financial distress and hard times, and only those engaged in the production of food and cheap clothing would have employment, the rest would be in want. This is a strong statement, but true, and if it causes the thoughtless and miserly to stop and think, it has served a good purpose.

Civilization demands not only necessities, but some luxuries and many semi-luxuries. The large proportion of the population are busily and happily engaged in supplying these wholesome needs. It is easily seen then, that the happy-go-lucky man, in scattering his money freely, helps to make the country prosperous by keeping money in circulation. He would not be able to buy many Government bonds it is true, neither has he done much to provide for a rainy day or for his old age, but he has enabled others to do so. He is the better man of the two extremes at that, for he has added to the happiness of his fellows. It is well for the country, though, that all are not like him, for our prosperity would be fictitious and inflated and there would be no money in the banks to promote enterprises, or to assist the Government when it needs assistance.

Artificial wants and desires create a mental habit of dissatisfaction with life, and it has been found that no ordinary salary, however large, can cover all these desires. A man is happy in proportion to the absence of artificial wants, and it takes firmness of mind and purpose to prevent their creeping in.

A sensible, thrifty man realizes that to properly support his brain he must have plenty of good and wholesome food (but he does not waste it), and that good clothes enhance his self-respect, enabling him to appear among his fellows without embarrassment; also that good reading and music enlarge and exalt the mind and make him a desirable companion and good citizen. By the indulgence of these modest wants he helps others to prosper, and if a man of family, his children are likely to be happy; and a happy childhood is the best kind of foundation for a country's future manhood. His is a simple, fine life and his real needs go no further. These are the people whose lives and savings are methodical; the ones who have bank accounts, and who can buy victory bonds or thrift stamps and provide for old age.

All of this is obtainable at a comparatively small expense above the barest necessities of life, and is within the reach of most people, in proportion to the position of life they occupy.

Part II
How to Get Rich on a Salary

The wailing cry we ever hear is "You can't get rich on a salary." This is the excuse of the self-indulgent and thoughtless. The pity of it is that so many believe it because it is oft repeated.

The word "riches" really does not mean much, for it cannot be defined to the satisfaction of every one. To one man it may mean a comfortable reserve fund that will tide him over adversity, and be large enough to provide for his old age in the way of life he has been accustomed to.

To another, it means unlimited wealth, and to such a man the possession of a half million of dollars would not make him feel rich. Riches are relative. It depends upon our mental attitude toward the world. Each must decide for himself the definition of riches. No ordinary income, however large, will satisfy those who have vain and foolish wants.

It is to the first man that these lines are addressed, and a method outlined. The saving of much money above a fixed scale of comfortable living is altogether dependent upon a *regular habit of saving;* occasional savings will not do it. It is a mathematical proposition entirely, based on the fact that money makes money, and this interest money, and *all raises of salary*, bonuses, etc., go into the reserve fund.

To illustrate: suppose that a man received $125.00 per month and saves $25.00 per month, or $300.00 per year. He received a raise to $150.00 per month, and by keeping on the same scale of living he will save $600.00 per year, or 100 per cent. more saved on a 20 per cent. increase of salary. How many will do this? Very few, but the wise man will if he was comfortable before; at least until his reserve fund warrants an increase in his way of living. To show how money makes money, suppose that the ordinary man at the age of 35 has a reserve of $5,000.00, in 12 years at 6 per cent. this will be $10,000.00, and in 12 years more $20,000.00, without bonuses or increases being taken into account, and this, too, without having saved another cent after 35 years old. It shows plainly that if one kept on saving after 35 years he would accumulate a large sum.

This is an appeal to the young man to form the *habit* and begin saving *regularly now*. The advice is good for the older men too. It is only the old, careless, thoughtless men who originated the saying quoted above. Regularity, *method and habit* of saving bring home the bacon.

Part III
Fear

Fear is mankind's worst inheritance from the remote ages. One can almost imagine the scene when he first ap-

BANK OF MONTREAL

Established over 100 Years

Capital Paid Up - - $20,000,000
Rest - - - $20,000,000
Undivided Profits, $1,812,854
Total Assets - $545,304,809

BOARD OF DIRECTORS:

Sir Vincent Meredith, Bart., President
Sir Charles Gordon, G.B.E., Vice-President
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Lord Shaughnessy K.C.V.O. Harold Kennedy, Esq.
C. R. Hosmer, Esq. H. W. Beauclerk, Esq.
H. R. Drummond, Esq. G. B. Fraser, Esq.
D. Forbes Angus, Esq. Colonel Henry Cockshutt
Wm. McMaster, Esq. J. H. Ashdown, Esq.
E. W. Beatty, Esq., K.C.

Head Office: MONTREAL

Sir Frederick Williams-Taylor, General Manager

Branches and Agencies — Throughout Canada and Newfoundland At London, England, and at Mexico City In Paris, Bank of Montreal, (France) In the United States - New York, Chicago, Spokane. San Francisco - British American Bank (owned and controlled by Bank of Montreal).

A GENERAL BANKING BUSINESS TRANSACTED

ESTABLISHED 1875

IMPERIAL BANK
OF CANADA

CAPITAL PAID UP $7,000,000 RESERVE FUND $7,500,000

PELEG HOWLAND, President

The Imperial Bank offers exceptional banking facilities to Canadian Manufacturers. Branches throughout Canada. Agents and correspondents in all the world centres.

Collections made at all points in Canada and in foreign centres.

Drafts—Money Orders and Letters of Credit issued, available throughout the world.

Exchange—Domestic and Foreign Exchange bought and sold.

Government and Municipal Securities dealt in at all branches.

Savings received at all branches—interest credited half yearly at current rate.

Accounts of Merchants and Manufacturers solicited.

HEAD OFFICE - TORONTO

peared on earth and his plight must have been pitiable in the extreme, for he was defenceless as compared to other animals. He had neither claws nor teeth for defence, and could not fly, nor could he run very fast. The great beasts, reptiles and birds of prey, in those far-off days were his physical masters, and it is a wonder that he ever survived. His abode was either in trees or caves and neither was safe from intrusion; further, his subsistence was very precarious. He was in constant terror all of the time, and a form of this fear is instinctive in all of our minds to this very day. It is true that at that time he was nearly, if not quite, an animal himself; but his experiences have left their mark upon our minds. When he learned to throw stones and use clubs he made a little progress towards survival.

Not only did he have the beasts of prey to contend with, but he also had to defend himself from his fellow savages. The strongest killed the weakest and appropriated all of his belongings.

As time went on, men formed in clans and tribes for mutual protection. The upheavals of mountain ranges and gradual cooling of the earth's surface caused great climatic changes, which resulted in the extinction of some of the larger and fiercer beasts and birds of prey, and man began to have an ascendancy over the remaining animals. Mankind then began to multiply, but they still had the fear of death in some violent form, from either animals, or their fellows in numerous tribal wars.

As civilization advanced this fear became somewhat lessened, and the fear of death from starvation became more prominent. If he was thrust out of the tribe, death was sure, from either starvation or violence, so he became afraid of other men. In patriarchal times men were more or less slaves, and lived by the favor of the master, and feared its withdrawal. This debasing fear of man and the fear of starvation is our inheritance from those far-off times.

Fear is paralyzing, and it more or less prevents our best efforts and full development. If we were without fear we would be more likely to courageously attack the biggest problem with our heads up and chins in the air, facing the world squarely.

But we are held back by fear. If we labor for others, as most of us do, we hesitate to take a chance, because a failure may mean being thrown out of employment, and thus through fear we become craven in a more or less degree. Worry, too, takes something out of us, and we are handicapped by it to a large extent.

What is the remedy to-day for fear and worry? Simply money; a Reserve Fund, such as a wise business man provides to carry him over bad times. You are a business man, too, for while he sells commodities, you sell skill. So *get a reserve.* It is to be had by denying yourself the things not absolutely necessary to procure for you happiness and comfort. If you are the head of a family, it is true that it is hard to deny others some of their foolish desires, but it is your duty as the provider and head of the family to do so, until you have a reasonable reserve. It is a mistaken kindness not to refuse. A man with a reserve against sickness or lack of employment, even though small, has little fear; he is more cheerful, and because he is so, he is more apt to be given better employment, and socially sought out. His work is better, and he is more likely to be advanced in position, because the employer realizes that a man who can manage his own affairs well, can help to manage his. Is it not then worth while to get rid of *fear?*

National Breweries

Company Changes Fiscal Year to Correspond with Calendar Year and Shows Large Profit

Trading profits of National Breweries Limited for fourteen months ended December 31, 1919, amounted to $1,061,350, compared with profits of $616,265 for the twelve months ended October 31, 1918. After providing for depreciation, interest on bonds and dividends, the balance at credit of profit and loss was increased from $900,592 to $1,379,938. The company's active assets show an increase from $2,462,652 to $2,681,369, while property assets are up from $4,268,982 to $4,569,834.

Ames, Holden, McCready

Eight-month Report Makes Good Showing Compared With Previous Fiscal Year

Owing to a change in the fiscal year, the report of Ames, Holden, McCready, Limited, recently issued, covers eight months only, this being from May 1 to December 31. Net profits, after all deductions except preferred dividends, amounted to $307,400, as compared with $323,322 for the full 1918-19 period. It is pointed out that the four months excluded are those when business is at its height, so that the showing was even better than was indicated. Total sales were $4,269.368, being an increase of $1,022,642 over those in the corresponding period of the previous year. Prospects for 1920 were promising.

Nova Scotia Steel

Profits for 1919 Were Affected by Decreased Output and Lower Prices Prevailing

Combined profits of all departments of the Nova Scotia Steel & Coal Company, Limited, for 1919, were $2,193,304, as compared with $3,535,525 in 1918. The volume of business was smaller than for several years, being $6,889,941, as compared with $11,525,779 in 1918 and $12,359,113 in 1917. Net profits were $1,029,876, against $1,716,492 in 1918. The balance available for distribution on the common stock was $859,876, or at the rate of 6.39 per cent. The report states that during the depression, in order to furnish employment and hold the organization together, a considerable amount of business was taken below cost. The demand for steel improved towards the end of the year and at the date of the report the tonnage of unfilled orders was larger than at any time since the signing of the armistice.

Canadian General Electric

Profits for 1919 Showed Reduction, but Business at End of Year was in Large Volume

Total profits of the Canadian General Electric Co. for 1919 amounted to $1,617,989, with net profits of $1,093,320, the latter comparing with $1,436,483 in 1918. Dividends of $780,000 were paid. Adding the undivided profits from the previous year of $522,776 and then deducting $400,000 transferred to reserve, there remained at credit of profit and loss $436,097, which with the reserve of $5,000,000, left a surplus of $5,436,097.

The report refers to the depression which was felt in the first half of the year and to the great improvement in the last half of the year, when sales exceeded those of any previous period in the history of the company. It forecasts a continu-

EXPORT TRADE

Manufacturers contemplating the extension of trade in foreign countries are offered the assistance which this Bank's world-wide business connection makes possible.

The experience and facilities of a department of the Bank devoted wholly to foreign business are at your command.

THE CANADIAN BANK OF COMMERCE

PAID-UP CAPITAL - - - $15,000,000
RESERVE FUND - - - $15,000,000

C5A

The Merchants Bank of Canada

Head Office, MONTREAL Established 1864

Capital Paid-up - - - - - $ 7,000,000
Reserve Funds - - - - - - 7,574,043
Total Deposits (Nov. 30, 1919) - - - - 167,000,000
Total Assets (Nov. 30, 1919) - - - - 200,000,000

President: Sir H. Montagu Allan, C.V.O
Vice-President: K. W. Blackwell
General Manager: D. C. Macarow
Supt. of Branches and Chief Inspector: T. E. Merrett

Merchants and Manufacturers

are cordially invited to discuss all matters of finance with us.

The Merchants Bank is more than a mere depository—it is an Institution that stands ever ready to advise and assist its customers in regard to money matters, investments and business generally.

365 Branches in Canada Extending from the Atlantic to the Pacific, of which 138 are in Ontario, 44 in Quebec and 180 in Western Canada

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White and Eight Tints

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P.S.—Catalogues and advertising literature yours for the asking.

ance of profitable business, basing this belief on the great prospective development of the electrical industry. Reference is then made to the extensions and additions to manufacturing and distributing facilities at present being proceeded with.

Dominion Canners

Higher Profits Recorded as a Result of Greatly Increased Sales

Profits of Dominion Canners, Limited, for 1919, before deducting bond interest, but after providing for Business Profits War Tax, amounted to $819,823, as compared with $745,324 in 1918. After paying bond interest and preferred dividends, the sum of $559,683 was added to profit and loss, bringing the undivided balance in this account up to $2,031,905. The directors decided against paying a dividend on common, although earnings on common amounted to over 18 per cent. It was felt that the money was needed for the company's operations.

Riordan Pulp

Substantial Increase in the Earnings of the Riordan Pulp and Paper Co., Limited, in 1919

Gross earnings of the Riordon Pulp & Paper Co., Limited, in 1919 amounted to $1,810,126, an increase of $367,080 over 1918. After all charges were met, the balance available for application to the common stock was $851,088, equivalent to 18.91 per cent., this comparing with $816,563, or 18.14 per cent. in 1918. The regular common dividend disbursement of $450,000 was paid, leaving a balance of $401,088 to be added to surplus account, bringing this up to $2,591,796. Announcement is made that the common capitalization will be increased to $6,000,000.

Dominion Foundries

Earnings for the Past Year were in a Considerably Lower Scale than in 1918

At the annual meeting of the Dominion Foundries & Steel, Limited, held in Hamilton on March 10, earnings for 1919 of $654,000 were reported, comparing with $1,228,614, unofficially reported a year ago. After deducting preferred dividends, $596,400 remained, equal to 24 per cent. on the common stock. The company have $712,000 in cash, a plant valued at $2,000,000 and $651,000 in its investment fund. There is no bonded indebtedness. A large new plate mill is under contruction.

B. C. Fishing

Small Gain for the Year in Surplus of the B. C. Packing and Fishing Co.

While details of the profit and loss account are not given in the annual report of the British Columbia Packing and Fishing Company, it is shown that the surplus has increased from $1,439,694 to $1,465,802, with reserve up from $726,257 to $751,614. Dividends to the amount of $234,081 were paid and on August 21 last the dividend rate was increased from 5 per cent. to 6 per cent.

Among the total assets are included real estate, buildings, canneries, etc., less depreciation, to the value of $2,462,648.97, as against $2,610,539 last year. Insurance fund and other investments are given as $265,400. Shares in and advances to other companies are $369,172. These two items compare with a total of investments in last year's report of $580,251.78, which shows an increase of $54,320.43 Inven-

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Constantly enlarging our sphere of influence that we may extend to you ---our customers---the fullest possible banking accommodations, we have made notable additions to our branch bank system in Canada during this year.

We have more than 400 branches and continue to grow.

ASSETS EXCEED $174,000,000

Union Bank of Canada

HEAD OFFICE - WINNIPEG

THE ROYAL BANK OF CANADA

Capital Paid Up	$17,000,000
Reserve and Undivided Profits	18,000,000
Total Assets Over	500,000,000

HEAD OFFICE - MONTREAL

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Sir Herbert S. HOLT, Pres.	E. L. PEASE, Vice-Pres.
Jas. Redmond	Sir Mortimer B. Davis
G. R. Crowe	G. H. Duggan
D. K. Elliott	C. C. Blackadar
Hon. W. H. Thorne	John T. Ross
Hugh Paton	R. MacD. Paterson
A. J. Brown, K.C.	W. H. McWilliams
W. J. Sheppard	Capt. Wm. Robinson
C. S. Wilcox	A. McTavish Campbell
A. E. Dyment	Robert Adair
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E. L. Pease, Man. Director; C. E. Neill, Gen. Manager
M. W. Wilson, Supt. of Branches.

Branches in every Province of the Dominion of Canada and in **Newfoundland**; in **Havana** and throughout **Cuba, Porto Rico, Dominican Republic, Haiti, Martinique, Guadeloupe; Costa Rica,** and **Venezuela**; in **Antigua, Bahamas, Barbados, Dominica, Grenada, Jamaica, Montserrat, Nevis, St. Kitt's, Trinidad, British Guiana, British Honduras.**

ARGENTINE—Buenos Aires.
BRAZIL—Rio de Janeiro. URUGUAY—Montevideo.
SPAIN, Barcelona—Plaza de Cataluna 6.
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Bank of Hamilton Building Toronto, Ont.

Riordon Sales Company, Limited

MONTREAL

Riordon Pulp & Paper Company Limited
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MADE IN CANADA

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BLEACHED AND UNBLEACHED

FOR PAPER MILLS

IMPERVIOUS SPRUCE SHEATHING

LUMBER

SPRUCE, HEMLOCK AND PINE, CEDAR RAILWAY TIES AND SHINGLES, SPRUCE CLAPBOARDS

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uubscriptions are based on the service furnished, and are available only by reSptable wholesale, jobbing and manufacturing concerns, and by responsible and worthy financial, fiduciary, and business corporations. Specific terms may be obtained by addressing the Company at any of its offices. Correspondence invited.

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Halifax, N.S.	Ottawa, Ont.	Quebec, Que.	Sydney, N.S.
Montreal, Que.	Toronto, Ont.	Vancouver, B.C.	
St. John N.B.	Winnipeg, Man.	Calgary, Alta.	St. John's, Nfld.

C. A. B. BROWN, Superintendent Toronto

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Catalogue B.

The Goderich Organ Co. Limited
GODERICH, CANADA

Closet Seats, Flush Tanks, Medicine Cabinets, Everything for the Bathroom.

Write for Catalogue C and Price List.

tories of stores, nets and supplies total $628,330, and fish canned and in cold storage are valued at $386,050, which make a total under this head of $1,014,381, which is slightly under the total for the same items last year, which was $1,035,553. Accounts and bills receivable (less provision for doubtful accounts), are $189,961, which compares with $421,264 in 1918.

This item last year makes special mention in itemizing of sundry debtors, including fishermen's accounts Cash on hand and in bank this year was $223,962, which is somewhat of an increase over the same item last year, which amounted to $6,116.

Brandram-Henderson

Increased Earnings and Record Sales Reported by This Company for the Past Year

Net profits of Brandram-Henderson, Limited, for 1919, amounted to $299,736, which compares with $238,133 for the thirteen months ended December 13, 1918. After meeting all charges, including depreciation, dividends and war tax, the balance at the credit of profit and loss was increased from $501,519 to $639,027. The balance sheet shows total current assets of $1,610,703, as against current liabilities of $339,410.

Regarding general trade conditions, George Henderson, the President, reports: "During the early months of the year foreign sales were disappointing, but by the end of the year export shipments and booked orders represented a bigger percentage of total than ever before. This was in no way attributable to any decrease in home trade, because each Canadian division reports a half-yearly increase, and also an increase for the year."

Canadian Salt Co.

Profits for 1919 were on Practically the Same Scale as in Previous Year

Operating profits of the Canadian Salt Co., Limited, for the year 1919 were $226,881, as compared with $223,342 in 1918. Net profits amounted to $136,286, or almost exactly the same figure as the previous year. A balance of $72,286 was added to surplus, which now stands at $595,858. Mr. E. G. Henderson, president of the company, in the directors' report, states that great difficulty was experienced during the year in obtaining a requisite supply of fuel, owing to strikes and embargoes in the United States, and in addition at times the supply of hydro power was greatly curtailed, which prevented the plants being operated at full capacity.

Howard Smith Paper Mills

Big Gain Recorded in Net Profits and Working Capital Position During Past Year

Net profits of Howard Smith Paper Mills, Limited, for 1919 amounted to $429,228, compared with $252,604 in 1918 and $200,546 in 1917. After other revenue is added, total income for the period amounted to $437,990, which compares with $257,241 in the previous year. Deducting bond interest and preferred dividends, a balance of $369,524 remained, which represented earnings of 34.8 per cent. on the common. A generous amount was allowed for depreciation, and $181,552 was carried to general reserve, bringing it up to $643,793.

Provincial Paper Mills Co.
Limited

PAPER FOR CATALOGUES

Mills at

Thorold, Georgetown and Mille Roches, Ontario

HEAD OFFICE - TORONTO, CANADA



Banishes Work-day Weariness by Saving Countless Futile Steps

MODERN business demands that the costly wastefulness of mis-directed efforts—the work-day weariness of futile steps be saved. As the craftsman with the better tools is always the better workman, so the office man or woman with the better tools can be depended upon for more work and better work.

The OFFICE SPECIALTY Record Desk banishes the countless futile steps required to run to and from the ordinary filing cabinet. It enables the worker to concentrate her mind on the work to be done. With the Record Desk, one clerk can do more work than two working under old fashioned conditions. It helps greatly to eliminate errors and thus improves the quality, as well as increases the volume of work accomplished.

The Record Desk is compact and occupies but little floor space. It is sectional and can be arranged to accommodate any record card file, large or small. It places thousands of card records within arm's reach and combines every advantage of the serviceable desk with those of the ordinary record filing cabinet with every step in between saved.

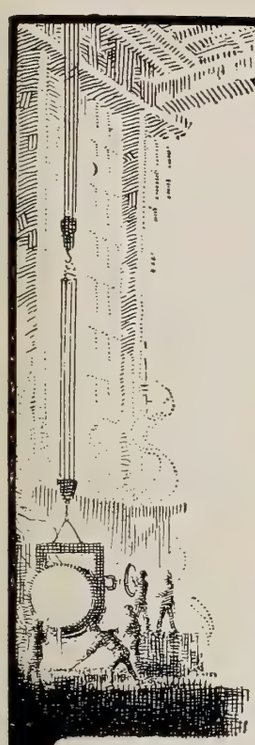
There is no other desk like the OFFICE SPECIALTY Record Desk, because it is the only one into the building and designing of which go more than thirty years of experience in designing and building office equipment for Canada's more important firms.

This is the age—the day—the *hour* of service. Success is assured only to those firms and individuals who can deliver service. Competition demands speed and accuracy. Good judgment dictates that wasted energy which so makes our work day wearisome, be banished and tasks made easier. The OFFICE SPECIALTY Record Desk will accomplish both in every office where a record filing system is used. Especially desirable in purchasing departments, advertising departments, warehouses, store rooms, and all similar branches of business in which careful and accurate filing and quick availability of the larger card records are a necessity.

System Service goes with all OFFICE SPECIALTY equipment. It does not end with the completion of the sale but, is given free with perfect willingness to all who need it as long as desired. If you have Office System problems to solve, OFFICE SPECIALTY System Service Experts, men schooled and experienced in systematizing and the organization of office routine are at your call. A card or phone message will receive prompt attention.

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FILING SYSTEMS



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Speeds Production—Cuts Costs

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Each step in every process, every method, every practice, has been subjected to the closest scrutiny with a view to securing an increasing degree of accuracy in control.

Gradually there has been evolved a plan of operation that has completely eliminated everything unnecessary or wasteful, speeding up production and cutting down costs.

What mighty corporations have done every progressive manufacturer can do.

Let us make a survey of your plant and give you confidential suggestions calculated to increase its efficiency—and your profits



MILTON HERSEY COMPANY, LIMITED

Industrial Chemists, Engineers and Inspectors
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Factories Damaged by Lightning

Tall chimneys and high structures are particularly susceptible to damage by lightning. Not all the damage comes from direct flash. When a stroke occurs all the metal parts, such as steel beams, pipes, electric wiring, roof gutters, etc., are ***charged*** by "Induction," frequently producing sparks which cause fire. Last year the insurance companies paid $1,500,000.00 in Canada for damage by lightning. All risk of fire or damage by lightning can be eliminated and 100% protection ***guaranteed*** by installation of

Shinn-Flat
System of Lightning Prevention

This system embodies the scientific principles discovered by Prof. Day in his 16 years' research work, both in regard to the kind of "rod" that is safest, and the kind of "installation" that will make a stroke of lightning harmless. It requires as much expert and scientific accuracy to "rod" a building correctly, every building being different, as it did to discover the most efficient kind of lightning rod. The Shinn-Flat Lightning Rod of copper wires woven into a flat ribbon is thelast wordin ScientificLightning Protection. Ask Shinn Mfg. Co. about protecting your chimneys and factories.

Agents Wanted—It is a profitable business to be agent for the Shinn-Flat System of Lightning Prevention. Dealers or responsible individuals who wish to represent our line please write for particulars and terms.

Write for full information, Prof. W. H. Day's Book "Lightning, Cause and Control." Mailed on request.

Shinn Mfg. Co. of Canada Limited, 126 Woolwich St., Guelph, Ont.
PROF. W. H. DAY, Manager

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Secure Canadian Plant

The Republic Stamping & Enameling Co., Canton, Ohio, Take Over a Toronto Industry

The Republic Stamping & Enameling Co., Canton, Ohio, manufacturers of "Old English" grey enameled ware, have purchased the entire stock issue of the Consolidated Stamping & Enameling Co., of Toronto, and will form the Republic Stamping & Enameling Co. of Canada, Limited, to operate the Canadian industry, at 2382 Dundas Street, Toronto. Decision as to the enlargement of the plant will be made by the directors, and an early announcement of the company's policies will shortly be forthcoming.

To Make Auto Tops

General Top Co., of Canada, Limited, Take Over Aeroplane Plant at Toronto

The General Top Company of Canada, Limited, have been incorporated to manufacture a new type of automobile top, known as the Artcraft Top. It possesses certain special and exclusive features which make it a desirable article. The company have taken over part of the old Curtiss Co.'s plant at 163 Dufferin St., Toronto, and started producing about the first of the month. When operating at full capacity, they expect to employ from 125 to 150 hands.

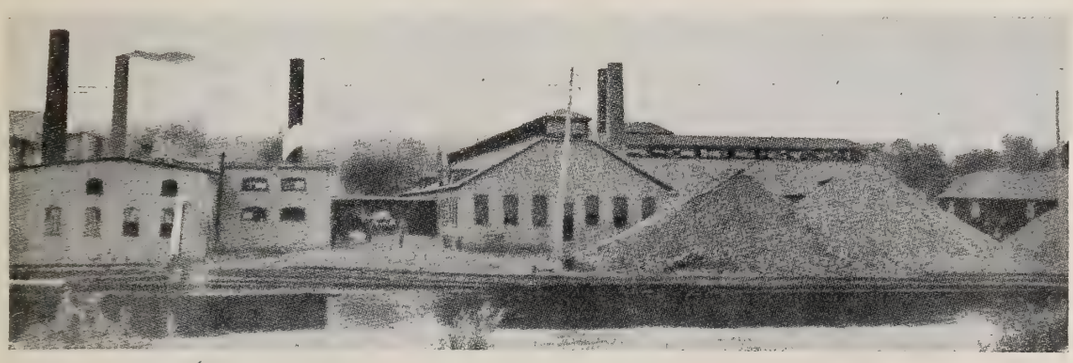
The officers of the company are: President, R. C. Kilgour, President Packard-Ontario Motor Car Co.; Vice-President and General Manager, Lawrence W. Lee, formerly Asst. Supt. of the Ford Motor Car Co.; Secretary, W. L. Cowan, Treasurer Ontario Motor Car Co.; Directors—E. G. Baker, Secretary F. N. Burt Co.; C. R. Norton, President General Top Co., Cleveland; H. S. Norton; E. A. Petriquin, Cleveland, and H. P. Macintosh, Jr., Cleveland.

New Product for Canada

Diamond State Fibre Co. of Canada, Limited, to Make Vulcanized Fibre and Its Products

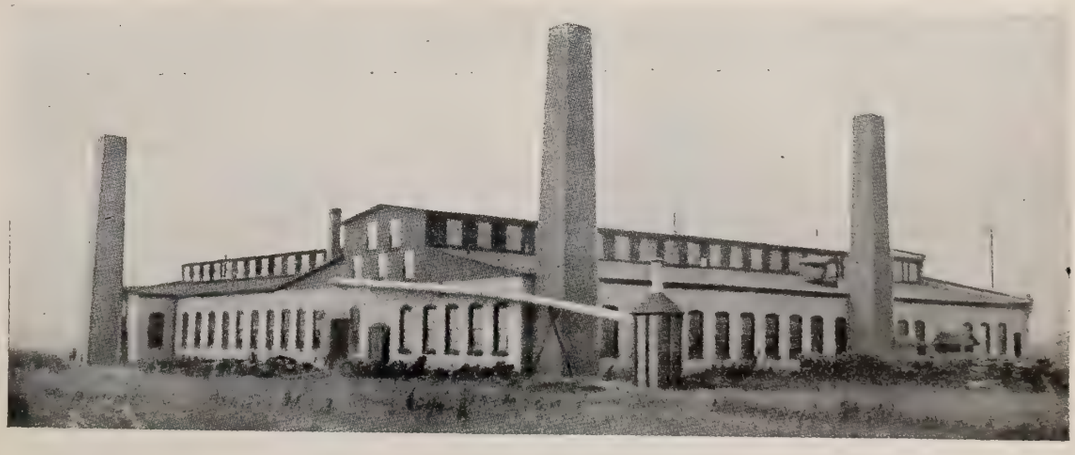
The recent incorporation of the Diamond State Fibre Co. of Canada, Limited, is a matter of considerable interest to Canadian industry. The company will make vulcanized fibre and its products, under the name of "Diamond Fibre." This substance has a varied use in the electrical and mechanical fields. In the former it is used for insulating bushings, gaskets, washers, wire conduits, handles, track insulation, etc.; in the latter for noiseless gears, discs, wheels, timer rings, frictions, bearings, etc. It is also extensively used in the manufacture of trunks, suit cases, trucks, barrels, baskets, boxes, etc.

For the present the Canadian company will not manufacture the raw material, but will import from the Maidstone, England, or Bridgeport, Penn., mills of the Diamond State Fibre Co., the raw material, and machine the finished products in Canada, the company's plant in Toronto being fully equipped for the fabrication of fibre specialties. It is understood that



Has Proved Too Small

The No. 2 Plant of the Smith's Falls Malleable Castings Co., Limited, capacity of which has not been adequate to handle business offering



Again in Operation

The No. 1 Plant of the Smith's Falls Malleable Castings Co., Limited, which was closed down for several years and has again been requisitioned

just as soon as the demand warrants, a mill for the manufacture of the raw materials will be erected in Canada.

The Diamond State Fibre Co. are the world's largest manufacturers of vulcanized fibre. They have mills and factories at Maidstone and London, England, and at Bridgeport, Pa., West Consihohocken, Pa., Elsmere, Del., Boston, Mass., and Chicago, Ill. The Canadian company are now prepared, under the management of Mr. T. Ellwood Webster, to give the best service to the Canadian market. Hitherto it has been necessary for the Canadian buyer to import from the United States, which involved delay in putting shipments through the customs and securing delivery. With the establishment of the Canadian company, this difficulty will be eliminated.

New Cement Enterprise

Ontario Cement Co., Limited, will Build Plant at Beachville, near Woodstock

The Ontario Cement Co., Limited, who have acquired the physical assets of the late Ontario Portland Cement, Limited, whose plant was located at Blue Lake, are proceeding with the erection of an 800-barrel mill at Beachville, midway between Woodstock and Ingersoll. Here are located valuable deposits of clay and limestone, sufficient to supply a 1,500-barrel mill for fifty years at least, while the property is admirably located for transportation and power.

Directors of Ontario Cement Co., Limited, include D. L. Adams, Adams Wagon Co., Limited, Brantford; E. P. Watson, Watson Manufacturing Co., Limited, Brantford; K. W. Harvey, Harvey Knitting Co., Limited, Woodstock, and George McCrae, formerly with the Ontario Portland Cement Co.

The company's prospectus states that building operations will be commenced as soon as weather permits, and it is confidently expected to have the plant in operation by August 1. In the meantime, the company intends to reopen the Blue Lake plant in order to take advantage of the present demand for cement, and material will be drawn from the Beachville property.

Building Large Addition

Parisian Corset Mfg. Co., Limited, Quebec, to Have 21,700 feet More Floor Space

An addition 70x62 feet, five storeys, and containing 21,700 square feet of floor space, is being erected by the Parisian Corset Manufacturing Co., Limited, Quebec, and will be ready for occupancy about May 1. With this expansion adjoining the main building northward, the floor area will be about 70,000 square feet. The building will extend from Colomb Street to St. Valier Street, and the offices will be removed to the latter street. A lunch room will be provided for the employees on the fourth floor, where coffee or tea will be served gratuitously by the company.

New Milk Factory

Bowes Milk Products, Limited, Are Erecting New Powdered Milk Plant at Sydenham

A building of brick construction, 96x196 feet, capable of enlargement, is being erected by Bowes Milk Products, Limited, at Sydenham, Ont., for the manufacture of dry or powdered milk. With equipment, the plant will cost from $150,000 to $200,000, and it will be ready about the middle of May. It is located on the Canadian National Railways, immediately opposite the Sydenham depot, and will have its own siding. Reports indicate a milk supply of 150,000 to 200,000 pounds per day within a radius of twelve miles.

A Full Measure *of* Fire Protection

is furnished your plant by means of



Eddy's

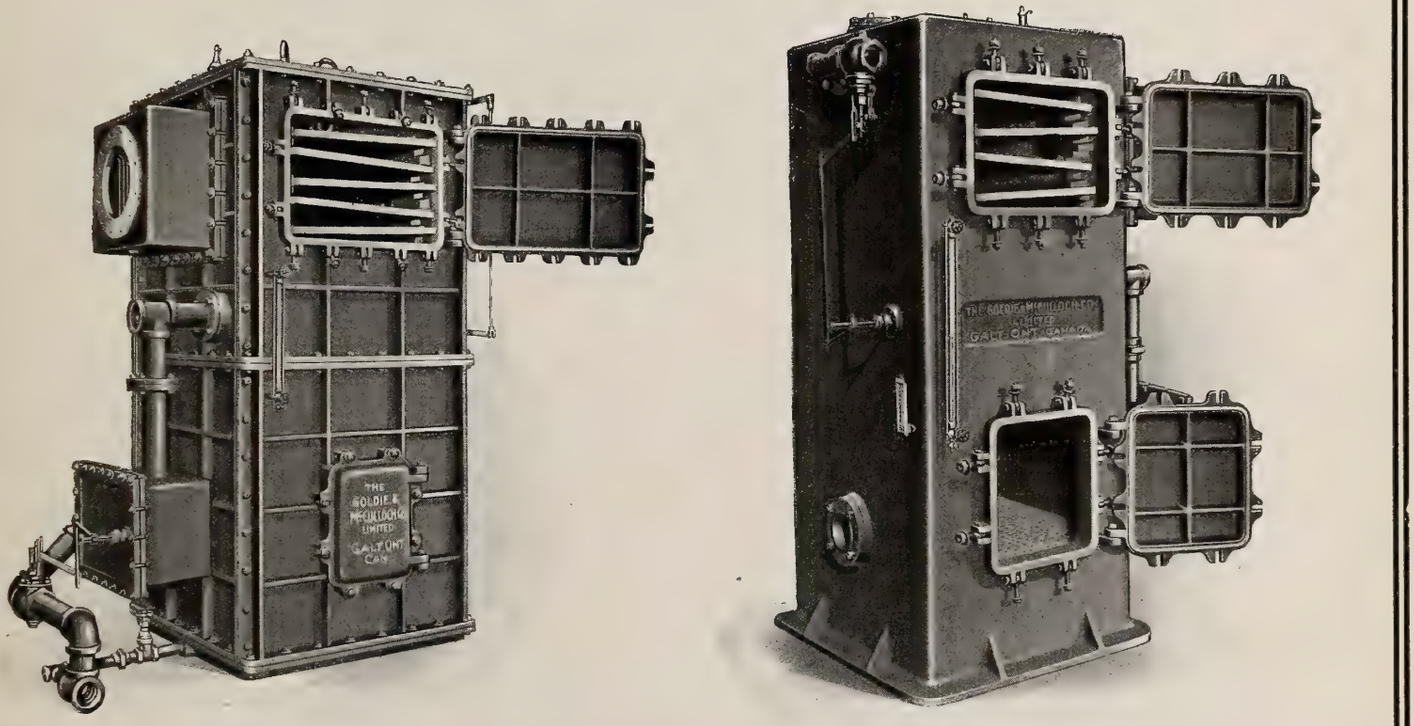
Indurated Fibreware Fire Pails

Made of Indurated Fibreware and moulded all in one piece these light leak-proof fire pails are practically everlasting. And they are always there when the call comes. Every pail has a rounded bottom that necessitates its being placed on its rack or hook.

Any hardware dealer will be glad to show you the Eddy Fire Pail

The E. B. Eddy Co., Ltd. Hull, Canada

HIGH EFFICIENCY
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LAND AND MARINE



Our Sectional and Solid Types Cast Iron Open Feed Water Heaters
Built in sizes up to 5000 Horse Power

The Heater that will effectively extract oil and grease from the exhaust steam and deliver the feed water at nearly boiling temperature, at the same time removing any scale forming matter that can be precipitated at this temperature

WE BUILD

STEAM ENGINES, STEAM TURBINES, RETURN TUBULAR AND WATER TUBE BOILERS, PUMPS, HEATERS, CONDENSERS, ETC.
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QUEBEC AGENTS: Ross & Greig 400 St. James St., Montreal, Que.

The company contemplate drying an average throughout the year of 50,000 pounds per day, and this will be exceeded in the flush season.

The Sydenham plant is the second plant of Bowes Milk Products, Limited, they already operate a factory at Bloomfield, Ont. Here the process building is 40x140 feet, two storeys, with storage warehouse on siding 200x40 feet, also two storeys. The capacity is 50,000 pounds per day.

To Double Capacity

J. Ford & Co. are Making Improvements to Their No. 2 Paper Mill at Portneuf Station

Considerable additions are being made at present to the No. 2 mill of J. Ford & Co., manufacturers of hard sized news lining, hanging, colored poster, wrapping and bag papers, Portneuf Station, Que. These consist of a new reinforced concrete, fireproof building, 200 x 80 feet, two stories, with an extension for boiler room. It is intended to move the 120-inch Fourdrinier machine from the old to the new building, and a second machine is on order, though it will be some time before it is delivered. Capacity will then be doubled.

Have Taken Over Plant

Independent Concrete Pipe Co., Limited, Formed to Operate Woodstock Industry

The Independent Concrete Pipe Co., Limited, have taken over the plant in Woodstock of the B. Blair Co., Mr. Blair becoming president and manager of the new company. John E. Russel Co., Toronto, are general sales agents. The company will continue to turn out a full line of concrete pipe, in sizes from 6 to 108 inches in diameter, and the plant has been considerably enlarged and improved. They have also secured the right to manufacture lock-joint pipe in Ontario. Later on the company may see fit to manufacture other concrete products. Capitalization is $200,000.

New Shoe Industry

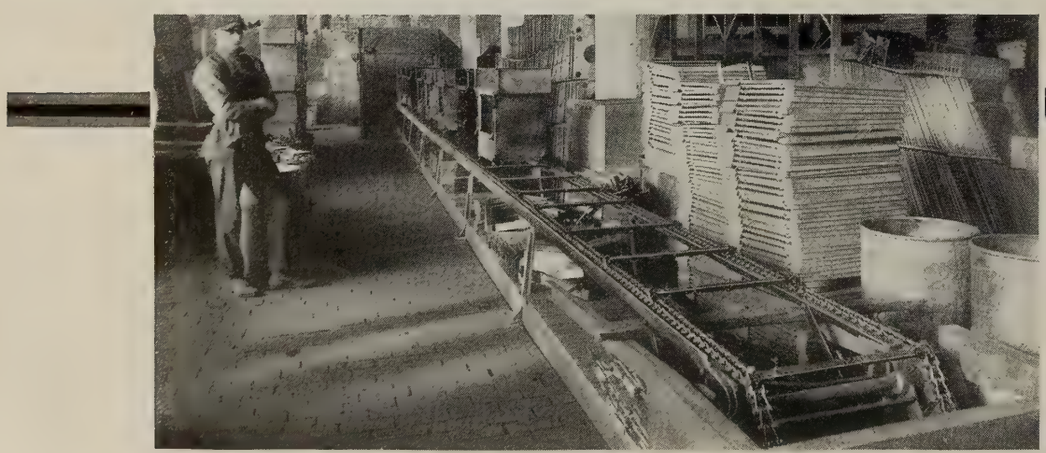
Owen-Elmes, Limited, Toronto, Are Going in for the Manufacture of Pumps and Slippers

It is announced by Owen-Elmes Limited, Toronto, that they will undertake the manufacture in Canada of hand-turned pumps and slippers, lines not hitherto made in this country. They have not yet made final arrangements but, as the industry will not require any great floor space or much heavy machinery, the question of building accommodation is a minor consideration. Full details of the new undertaking will be available later.

Established in Cornwall

Canadian Linoleum & Oilcloths Limited, are Getting Plant in Readiness for Early Operation

Canadian Linoleums & Oilcloths, Limited, who were recently incorporated with a capital of one million dollars, have purchased a site in Cornwall, on which is erected a new solid brick and stone building, 45 x 112 feet, four storeys and a half in height. Work has commenced on alterations and additions to this building, and machinery has been secured and will be installed shortly. While it is impossible to state definitely when manufacturing will commence, it is hoped that some lines, at least, can be produced within the next two or three months. A loan of $40,000 is being





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can cut down the cost of handling your product and release your labor for more profitable work. No matter what your product may be, it will pay you to submit your problem to our experienced engineers for solution. We have helped many.

Tell us how you handle your raw or finished product, the number of men required in moving it, together with a rough pencil sketch of your plant lay-out. We may suggest a plan for doing the same work mechanically with a saving of time, labor and money

CANADIAN LINK-BELT CO., LIMITED

WELLINGTON and PETER STREETS - TORONTO



DAYLO—a safe-guard of industry

—where the smallest crack or flaw, overlooked, would mean disaster

—down in the cellar of the sky-scraper

—in the murky gloom of a ship's stoke-hold

—in the boiler room of the industrial plant

—wherever the safety of lives and property depends upon thorough and accurate inspection

—*there a DAYLO is needed*

There are a dozen places in your plant where a DAYLO is needed to make sight clearer.

And there are a hundred other places where a DAYLO can quicken production, reduce break-down delays, prevent minor accidents, and help improve quality of the work.

One for every purpose

A few of the Daylo types suitable for industrial use are shown here—there are many more to fit the varied needs for quick, sure and strong light throughout the plant.

All leading hardware, electrical, drug, sporting goods and auto accessory dealers can show them to you.

CANADIAN NATIONAL CARBON COMPANY
Limited
Toronto - Canada

A. 1114



made to the company by the town of Cornwall, and exemption from municipal taxes has been allowed.

R. E. Kingsley, managing director of the company, was until recently comptroller of the Dominion Oil Cloth Co., Limited. He spent fifteen years with the latter company, and prior to that was engaged in the cotton trade both in Canada and in the United States.

New Company Formed

Bourget & Guy, Cigar Manufacturers, Montreal, Are Succeeded by Prince Rupert Co., Limited

The Prince Rupert Co., Limited, incorporated with a capital of $75,000 under a Dominion charter, have succeeded Messrs. Bourget & Guy, cigar manufacturers, Montreal. They have recently established a second plant at Quebec. They are making high grade Havana cigars, such as "Prince Rupert," and also have a contract from S. Davis & Sons, Limited, for grades such as Davis Noblemen, Panetelas, Couchas, Maurice, Souchez, and Gene Vall, etc. They employ over 60 hands in Quebec and more than 100 in Montreal.

Making Large Expansion

International Metal Works, Limited, Brockville, Have Big Building Programme Under Way

Considerable additions are being made to the plant of the International Metal Works, Limited, Brockville. An additional storey, giving approximately 8,000 square feet more floor space, is being put on the main building. A two-storey addition, containing 3,500 square feet, will then be made. These additions are for the purpose of carrying on regular auto sheet metal parts production, which has increased in volume approximately 50 per cent. over the previous year. Besides this, the company have started the manufacture of automobile bodies, and for this have leased a portion of the National Manufacturing Co.'s building, occupying three floors of fairly large dimensions.

25 Per Cent More Output

De Long Hook and Eye Co., of Canada, Limited, Will Enlarge Their Plant

The De Long Hook and Eye Co. of Canada, Limited, St. Mary's, are proposing to add another storey to their present factory or, as an alternative, build a warehouse. They are also re-arranging their present factory to enable them to increase their output by at least 25 per cent. These arrangements, they state, are merely temporary, to enable them to cope with increasing business during the present year. Beyond that they have not decided what move or further addition to make.

Building Large Addition

The Perfect-Knit Mills, Limited, Listowel, Are Putting Up a New Four-Storey Mill

Work was started recently by the Perfect-Knit Mills, Limited, Listowel, on the erection of a new knitting mill. This will be 50 x 250 feet, four storeys with basement and attic. During the five years the company have been in business, they have not been able to take care of orders, and are now planning this extension in order to meet further business. They hope that the addition will largely increase output. It will be completed in the summer.

Will Make Parts in Canada

Burroughs Adding Machine of Canada, Limited, Windsor, Plan Important Extensions

The Burroughs Adding Machine of Canada, Limited, have at present under construction at McDougall and Anne Streets, Windsor, a reinforced concrete building containing

The Canadian Appraisal Company

Limited

FULL consideration must be given to the present conditions of high costs if adequate insurance is to be provided, an adverse operation of the Co-insurance Clause is to be avoided, and a satisfactory adjustment is to be assured in the event of fire.

Buildings erected only a few years ago may very possibly be worth double their original cost to-day. *This increased value is insurable and must be insured.* A bitter experience awaits the manufacturer who has not considered the necessity and who may have to rebuild after a fire.

To guess at values when insuring is obviously bad business. A leading Insurance Company states: "It is a fact that 85 per cent. of manufacturers do not carry enough fire insurance as compared with their present valuations."

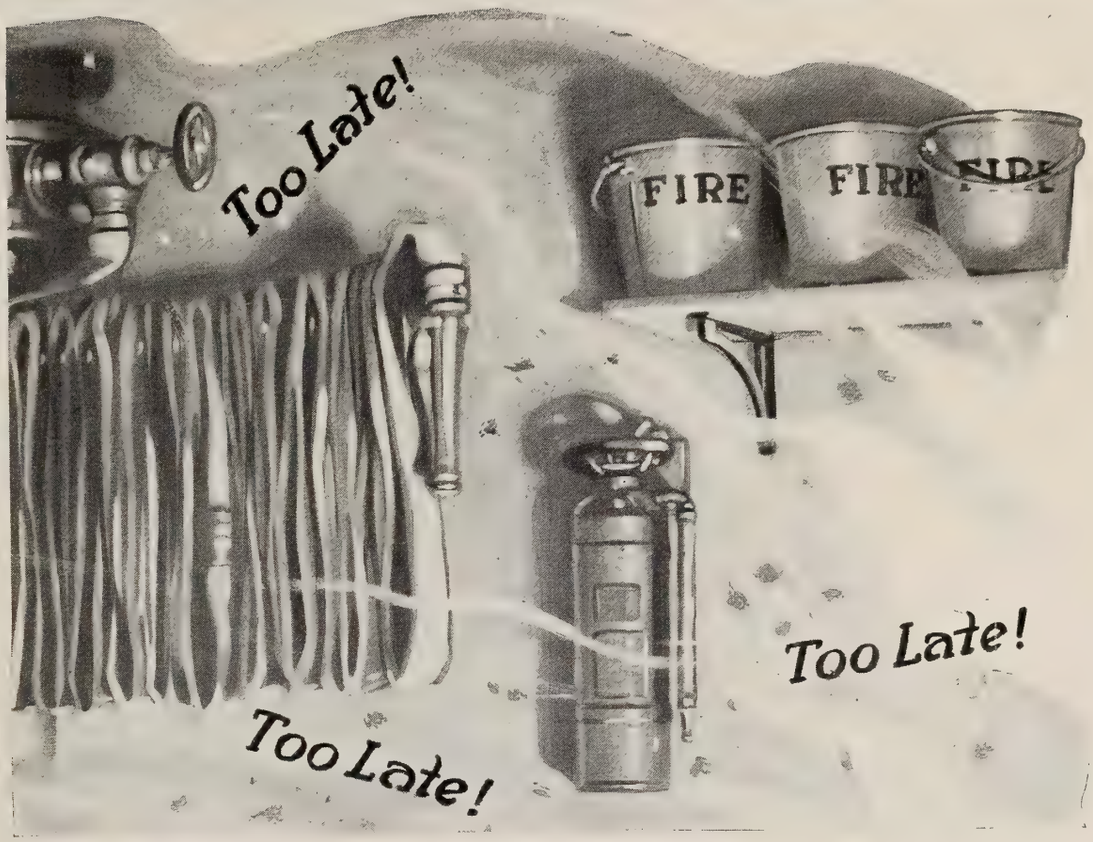
An Appraisal made on the basis of to-day's costs of labour and material is the only sound foundation for correct methods of insurance.

Correspondence Invited

Head Office: 17 St. John Street, Montreal

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NEW YORK
Equitable Building



There they hang—helpless!

One in every corner. One or more in every hallway. One on every stair.

There they hang, those wonderfully efficient chemical fire extinguishers.

Hose reels everywhere. Standpipes and hydrants galore.

"Perfect fire protection."

Yet buildings equipped with all of these humanly operated fire extinguishing devices burn every day in the year.

Why?

Because every one of these perfect fire fighting appliances needs a man behind it or it won't work.

That's why non-automatic fire apparatus so often fails.

That's why Grinnell Automatic Sprinklers are better fire-stoppers than the most efficient manual apparatus.

Long before the man-worked fire appliance can get to the heart of the fire, the little Grinnell Sentinel has put an end to threatened ruin, trouble and loss. When the fire starts, the water starts. Not a second is lost in getting ready or "getting there."

That's why the insurance rate on Grinnell protected buildings is so much less than on unprotected ones, that it soon pays for the entire equipment. Your insurance man will tell you just how much the saving will be on your own building.

Important

Heretofore the underwriters have often required a tank supply for automatic sprinklers in addition to the city mains. Now, however, Grinnell Sprinkler equipments can often be installed without a tank.

Don't "think it over" without the facts to guide you. Write us for actual figures to-day.

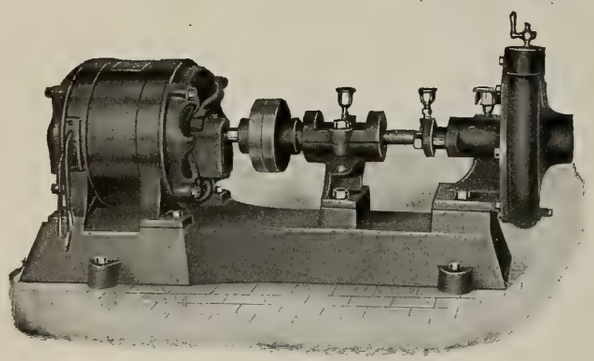
Grinnell Company of Canada Limited

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WINNIPEG, MAN.—914 Somerset Bldg.
MONTREAL, QUE.—370 Beaumont Ave.
VANCOUVER, B.C.—1140 Hamilton St.

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Engineers and Contractors for the Grinnell Automatic Sprinkler System

Ask the owners of 25 million Grinnell Sprinkler Fittings

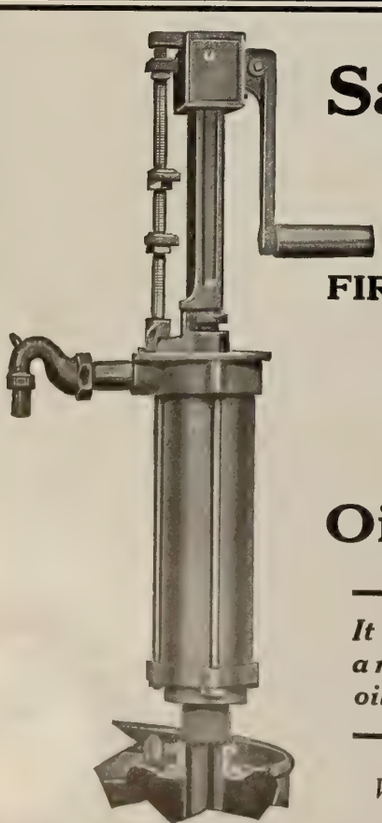
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Your Pump Problems



Our many years' experience in solving difficulties of pump installation is at your service

Write for Catalogues

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Limited
HAMILTON, ONT., CANADA



Save Oil
and
MINIMIZE FIRE HAZARD
by installing our
Hand Oil Pump

It stops the drips and consequent oil-soaked floor.

Write for Bulletin

Hamilton Motor Works, Limited
HAMILTON, CANADA

approximately 55,000 square feet. It is two storeys high, but is being built for future extension to five storeys, and should be ready not later than July. Hitherto the Burroughs Company have merely assembled machines in Canada from parts made in the United States. They expect now, however, to undertake the manufacture here of certain parts, and will ultimately extend the scope of this activity. With their new plant, they will be able to double output. The demand for their machines from foreign countries is reported to be increasing rapidly.

Will Make Juniper Oil

Quinte Chemical Co., Deseronto, Has Plant Nearly Ready for Operation

The Quinte Chemical Co., Limited, who were incorporated Feb. 19, 1919, with capital of $40,000, have their plant located near Deseronto, nearly 90 per cent. complete and, if sufficient capital is available, expect to begin operations early this spring. The company propose to distill juniper oil from the juniper bush and berry and cedar oil from the cedar bush and their plant has an initial capacity of a ton of bush per day, which can be increased to another ton per day by adding another still. They have eleven acres of ground and the plant is over 100 feet long by 30 feet wide, with other buildings for laboratory, shop, office, etc. The plant's capacity is at least 40 pounds per day. Col. W. J. Malley is president and treasurer and George F. Palmer, Secretary.

New Powder Industry

The Thompson Powder Co., Limited, Deseronto, Expect to Start Operations in About a Month

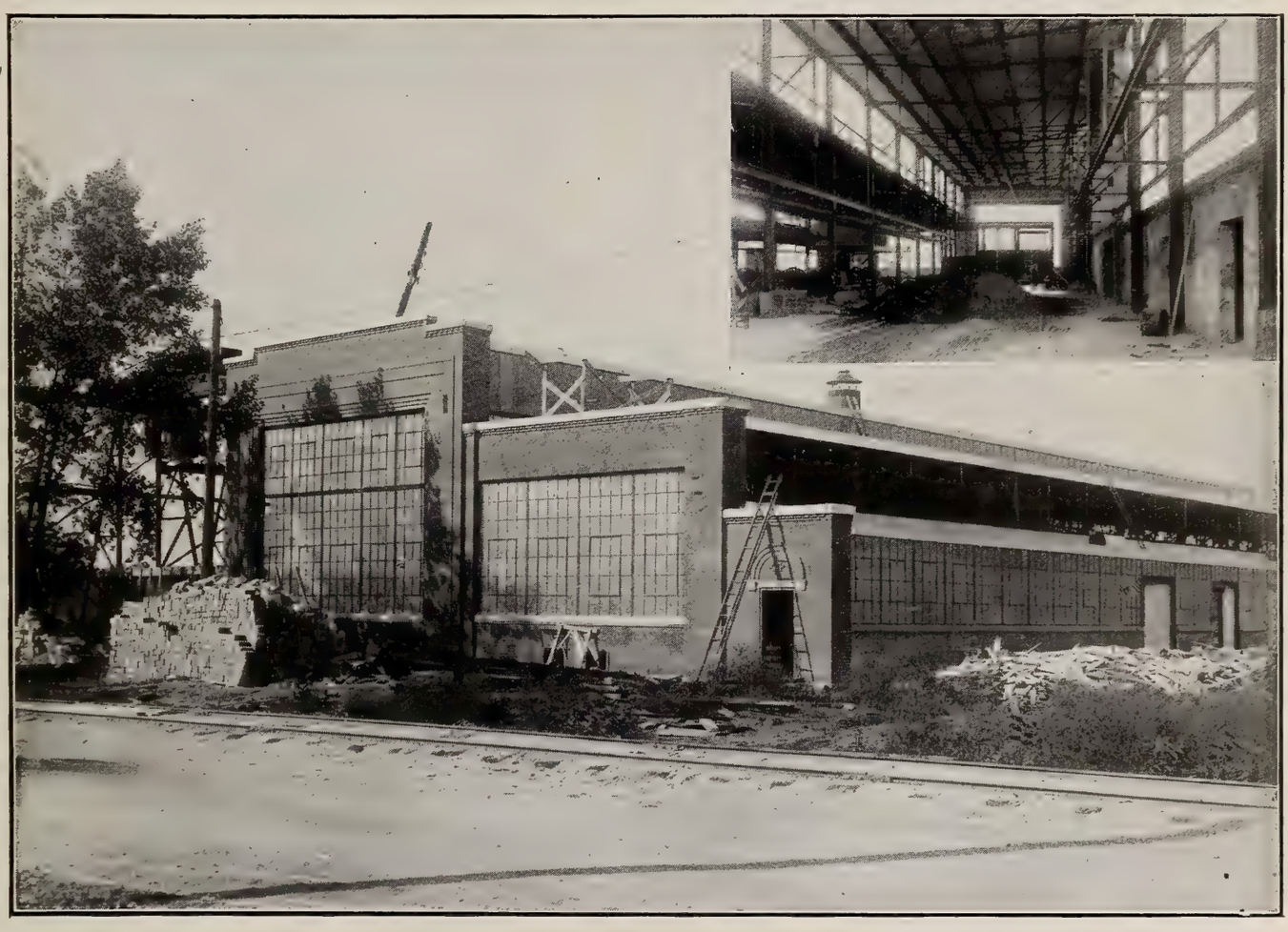
The Thompson Powder Co., Limited, have recently secured incorporation for the purpose of manufacturing and selling explosives. They have taken over some existing buildings in Deseronto, and are making necessary additions and equipping plant, which they expect to have operating some time next month. The company's prospectus explains that they will manufacture a new high explosive, called "Thompsonite," which not only does not throw off noxious fumes, but does not require thawing even in the coldest weather. It has also several other qualities which, it is claimed, will commend its use to mining men and contractors. J. D. Thompson is president and general manager; H. C. Anderson, vice-president, and J. A. Griffith, secretary-treasurer.

Plant for New Toronto

Lion Tire & Rubber Co., Limited, Propose to Erect Large Tire Factory at this Point

The Lion Tire & Rubber Co., Limited, have recently been organized for the purpose of establishing a factory in New Toronto for the manufacture of a high grade line of motor vehicle tires and tubes. A site has been secured on the Hamilton Highway, consisting of a fraction over five acres and the first unit of their contemplated plant will consist of a building 100 x 300 feet, two storeys, with an estimated capacity of 500 tires and 1000 tubes per day. A large part of the factory will be equipped for the manufacture of cord tires. Foundations will be strong enough for the addition of two extra

FOR SALE 1 Fairbanks-Morse 5-Ton Platform Scale
in first class condition. Price, f.o.b. cars Hamilton, $100.
An opportunity to get a first class scale at a remarkably low price.
Dominion Sheet Metal Corporation, Ltd.
HAMILTON - CANADA



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Architects

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Automobile Oils	Factory Paint
Transformer Oils	Boiler Compound

Smoke Stack and Boiler Paint

Canadian Oil Companies, Limited
Scientific Refining
General Offices: Toronto, Canada



For Full Information Write for Catalog I

Canadian Mathews Gravity Carrier Co., Ltd.
PORT HOPE, ONT.

storeys when needed. The practical men who are interested in the company are Messrs. Ridge & McCormish, of Akron, Ohio, but the company is organized and financed by Ontario business men and Ontario capital, with head office in Toronto. Officers are: President, J. H. Greenberg; vice-president, Amos Tipling, Wingham; secretary-treasurer, J. A. Cambell, Toronto.

Fifty Per Cent More Space

Eze Manufacturing Co., Limited, Toronto, Have Acquired Larger Premises for Expansion

The Eze Manufacturing Co., Limited, manufacturers of grocers' sundries, who have been located at 182 Adelaide St. West, Toronto, have purchased the building at 187-189 Parliament Street. Here they will have nearly 50 per cent. more floor space, with opportunity for doubling capacity again later on. The move is being made by the company to take care of rapidly expanding business, as well as to have their own premises in which to instal some new machines.

Make Exclusive Line

The Kimber & Hillier Mfg. Co. Now Manufacturing Drop Forge Dies and Tools

The Kimber & Hillier Mfg. Co. are a new company recently established in St. Catharines for the manufacture of drop forge dies, trimming dies, punching and bending tools. Their plant is composed of a three-storey brick building, with large frame building for storage in the rear, and is located on the Thorold Road. Their efforts have been favorably received, and they are at present making drop forge dies for several of the foremost drop forges in Canada. They claim to be the first and only firm devoted exclusively to the manufacture of drop forge dies and tools.

New Sales Office

Engineering & Machine Works of Canada, Limited, Open Eastern Sales Office in Montreal

The Engineering & Machine Works of Canada, Limited, St. Catharines, Ont., owing to the rapidly increasing demand for their products, consisting of boilers of all types, horizontal, vertical, locomotive and marine, tanks, plate work of all descriptions, etc., and particularly in connection with their recent and very successful venture, the manufacture in Canada of the Keystone Light Traction Excavator, Model 4, have found it necessary to open another eastern sales office in the Birks Bldg., Montreal, where inquiries can be more quickly and satisfactorily handled. This is in addition to their sales office in the Sun Life Bldg., Sherbrooke, Que.

Will Make Trucks

Gotfredson-Joyce Corporation, Limited, Formed to Take Over Plant at Walkerville

Benjamin Gotfredson, president, and Frank H. Joyce, Secretary and treasurer of the American Auto Trimming Co., Limited, Walkerville, have formed the Gotfredson-Joyce Corporation, Limited, for the purpose of manufacturing trucks. They have taken over the Gramm plant at Walkerville and are at present remodeling it, with the expectation of starting operations by about the end of April. The products of the factory for the present will be confined to 2½ ton trucks of an approved model, which has been in service and tested for the past six or eight months. The company expect to produce at least one thousand during the coming year. Mr. Gotfredson, who is also president of the American Auto Trimming Co., of

Canadian Carbonate Company, Limited

HALIFAX, MONTREAL, TORONTO
HAMILTON, WINNIPEG, VANCOUVER

■

Manufacturers of

"CROWN BRAND" LIQUID CARBONIC ACID GAS

Nova Scotia Steel & Coal Co.
LIMITED

PLATES

1/8 to 5/8" thick up to 48" wide, weighing up to 1060 lbs. each

Fluid Compressed Steel Forgings

We manufacture Merchant Bars, Rounds, Flats, Squares, Ovals, Half Ovals, Tires, Sleigh Shoes, Plain or Twisted Concrete Bars, Agricultural Sections, Cold Drawn Shafting, Machinery Steel, Angle Bar Fish Plates, Track Spikes and Bolts.

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Drop Forgings

ONE of the largest and best-equipped Forge Plants anywhere, is at your call for Drop Forgings of any kind, particularly in large quantities.

Dominion Forge & Stamping Co., Ltd.
WALKERVILLE, ONT.
Toronto Office : Excelsior Life Building

Ohio; of the American Auto Trimming Co., of Michigan, and of the Reading Corporation of Detroit, and until recently president of the Saxon Motor Car Co. of Detroit, is president, and Mr. Joyce, who holds a similar position in all the Trimming Companies, is secretary and treasurer.

Concentrating at Thorold

Beaver Board Companies Centre Their Canadian Plants to Facilitate Production

In order to effect economies in production, the Beaver Board Companies have removed their board mill from Ottawa to Thorold. The plant at Ottawa formerly supplied all the Canadian and export trade, but with increased demand it has been unable to supply these markets and during the past year or more a large part of the trade has been handled through the Buffalo plant. At Thorold a new finishing plant, 125 x 362 feet, has been built, which will give an output of 5,000,000 square feet of finished board per month at the outset, this being capable of increase. A new office building, 48 x 80 feet, has also been built.

Making Improvements

Midland Woodworkers Limited are Adding to Equipment and Increasing Capacity

Midland Woodworkers Limited, Midland, Ont., who took over the business of the Georgian Bay Shook Mills last October, have discontinued the manufacture of box shooks and are devoting all their attention to the making of doors, sash, mouldings, hardwood flooring and veneer panels. It is planned to develop the business as much as possible, especially in the hardwood flooring department, and new machinery is being installed for the purpose. The door plant, which has a present capacity of 250 doors per day, will be doubled before long. The president of the company is A. H. Vanderburgh of Toronto; W. H. Firstbrook of Toronto is vice-president; R. H. Scrivener, Midland, secretary-treasurer, and Fred M. Beatty, formerly of Saskatoon, is managing director.

Rebuilding Plant

Columbia Handle and Lumber Co., Limited, London, are Replacing Factory Damaged by Fire

The Columbia Handle and Lumber Co., Limited, London, whose plant was recently damaged by fire, are rebuilding, and expect to be in operation again early in May. The new plant will be the same size as before, but, by installing more up-to-date machinery and making other improvements, capacity will be increased. About fifty or sixty men will be employed. The product of the company consists of handles of all kinds, neck yokes, whiffletrees, and hardwood lumber.

To Start This Month

Canadian Nashua Paper Company, Limited, Peterboro, Expect to Start Some Machines Shortly

Owing to delays in getting machinery, the Canadian Nashua Paper Co., Limited, Peterboro, have not yet started operating, but hope to get some machines going this month. The plant has about 70,000 square feet of floor space and the work of erecting both waxing and gumming machinery is now going on under direction of Mr. George W. Watson, the company's engineer. Supplies of suitable raw materials have been secured in Canada and while a close relationship will be maintained with the parent company in Nashua, N. H., the Canadian enterprise will be an entirely separate business. Mr.

LUMBER

All Grades from our own Timber Limits



Spruce and White Pine

We operate complete Planing and Resaw Mills. Buy Bathurst Dressed Lumber and save paying freight on shavings

Kraft and Unbleached Sulphite Pulp

Our output of each is 50 tons daily

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LIMITED
BATHURST, N.B.

Retail Merchants of Canada— Read This

Neglect nothing that will add to your character as a straightforward and service-giving retail merchant. The advantages to be derived from the establishment of the prospective buyers' confidence in your store are too many to sacrifice to the fitful and unstablising effect of price cutting.

Products, bearing the confidence of the community at large, give to your store, the necessary prestige that controls the will of the buyer when desiring to purchase goods of real value. Products manufactured by a progressive and live organization and which through their direct association with a million families, are known from coast to coast, familiarizes each one of these families with your store.

With every such product, sold through your Agency, there rebounds to your credit a substantial profit upon which your business can be firmly established and well extended.

Such products are manufactured and marketed by McCLARY'S, the largest makers of Stoves and Furnaces in the British Empire.

Our nearest Branch is at your service.

McClary's

LONDON, TORONTO, MONTREAL, WINNIPEG
VANCOUVER, ST. JOHN, HAMILTON
CALGARY, SASKATOON, EDMONTON
CANADA

Peter Traver, who has occupied similar positions in the American mills for many years, will be superintendent.

The Canadian Nashua Paper Co., Limited, with an authorized capital of $500,000, have been incorporated to take over the Canadian business of the Nashua Gummed & Coated Paper Co. of Nashua, N.H. Officers are,—President, James Richard Carter, Boston; vice-president, Winthrop L. Carter, Nashua; treasurer, H. T. Kehew, Dansville, N.Y.; general manager, Robert A. Brown, Peterboro.

Erect New Plant

St. Lawrence Welding Co., Limited, Montreal, Replace Building Burned in February

The tank manufacturing department of St. Lawrence Welding Co., Limited, Montreal, which was destroyed by fire on February 5, has been replaced by a fireproof brick and steel structure, 148x60 feet and 25 feet high, into which the company moved about the first of the month. It has been equipped with two travelling cranes on run-ways, with individual jib cranes over all the heavy tools. The smaller tools which were damaged by the fire have been replaced. This new shop will greatly increase the company's capacity. Orders are being received beyond their best expectations.

Glass Factory for Coast

Alunite Mining & Products Co., Limited, Secure Site for Plant in Vancouver

The Vancouver Harbour Board have just leased four lots on Granville Island to the Alunite Mining and Products Co., Limited of Victoria. The company intend to erect a glass factory on the site, and according to information given the Harbour Commissioners, expect to begin production of glass within four months. The company hold an extensive series of claims on Kuyquot Sound, on the west coast of Vancouver Island, and plan extensive developments.

Extension of Soap Works

Lord Leverhulme Has Acquired Extensive Property in Vancouver for Enlargement

Lord Leverhulme when recently in Vancouver completed negotiations for the purchase of extensive water-front property on Vancouver Harbour. It is stated that the intention of the purchaser is to erect a factory as an adjunct to the present local industry, and to build docks and wharves. It is probable that the wharves will also be used in connection with the fishing interests in which Lord Leverhulme is concerned on the Pacific Coast.

Link Up Steel Industries

B. C. Commissioner of Industries Has Plan for Consolidating a Number of Companies

Major D. B. Martyn, D. S. O., Commissioner of Industries for British Columbia, has under consideration a scheme for the consolidation of the several companies at present manufacturing steel from scrap iron on the mainland and islands of this province. There are at present in British Columbia a number of companies engaged in the steel industry, each of them using scrap iron with imported pig iron as their basic material. The British Columbia Government consider the industry of such intrinsic importance that the plan now being considered will probably result in the amalgamation of existing plants, possibly assisted financially by the Government in order to place the industry on a well-founded and profit-

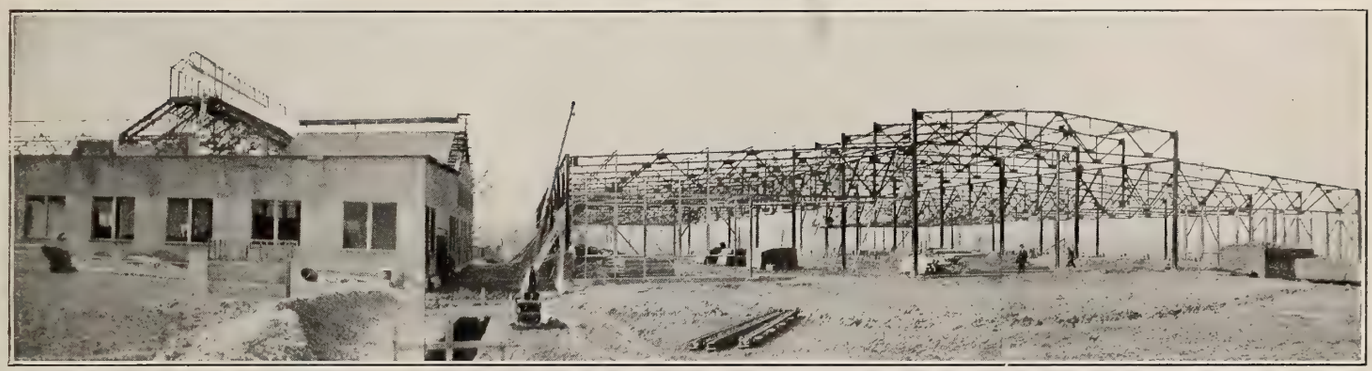
THE HAMILTON BRIDGE WORKS COMPANY

HAMILTON, CANADA LIMITED

STRUCTURAL STEEL

Engineers, Manufacturers and Contractors

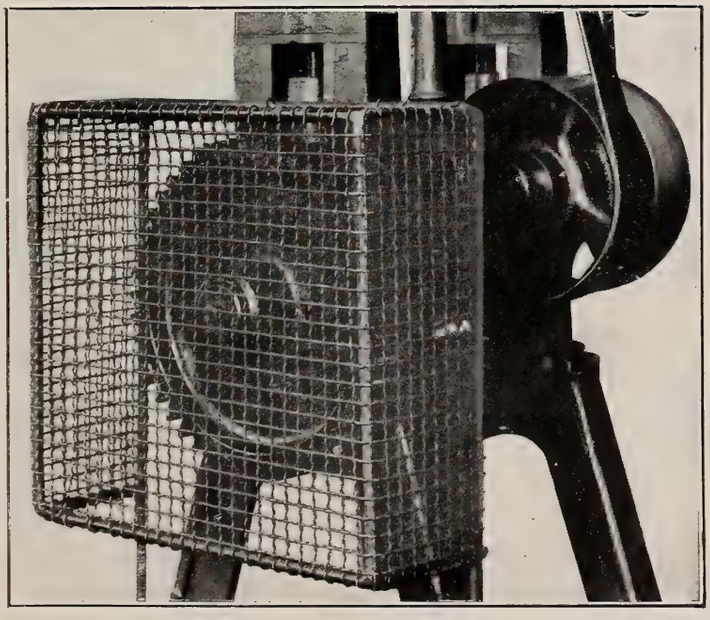
Annual Capacity 36,000 Tons



Steel Buildings for Glass Works, Thorold, Ont.

Steel Railway and Highway Bridges, Buildings, Crane Runways, Towers, Turntables, Tanks, Girders, Trusses and Columns

YOUR INQUIRIES WILL RECEIVE PROMPT ATTENTION



Wire Machinery Guards

Wire Window Guards

Wire Screening

Wire Cloth

Wire Work of all kinds

C. H. JOHNSON & SONS, LIMITED

Wire Works: St. Henry, Montreal

able basis. The companies at present existing possess among them sufficient machinery and equipment to provide for one plant of considerable dimensions.

Will Build New Plant

Laminated Materials Company Propose to Erect a Second Plant in New Westminster

The Laminated Materials Company of New Westminster will shortly establish another plant, the city of New Westminster having recently given this company an option on a site for that purpose. Under present conditions, where the company's plant is now located, there are difficulties which hamper larger operations, although the more specialized lines can be carried on economically. It is probable, therefore, that the present plant will continue to operate in that direction after the new one is built.

To Enlarge Scope

Sidney Rubber Roofing Co., Sidney, B.C., Will Enter the Pulp and Paper Field

One of the more recent firms to take advantage of the British Columbia Government's policy of assisting financially in the extension of industry in this Province is the Sidney Rubber Roofing Company of Sidney, B.C. This company has arranged a loan from the Government, through the Industrial Commissioner, Major D. B. Martyn, of $100,000. The chief object to which this loan will be applied is the erection of a pulp and paper mill, and generally to add to existing facilities at its command. It is the firm's intention to branch out in the paper business, and to develop a connection that will enable it to compete with other and older paper concerns in this and other provinces.

Branch in Vancouver

Woodtite Laboratories, of Modesto, California, Intend Establishing a Canadian Subsidiary

The Woodtite Laboratories of Modesto, California, recently advised the Vancouver Office of the Association that it is the intention of that company to establish a plant in Vancouver. This plant is for the purpose of meeting present and future requirements of the Canadian trade west of Winnipeg. The Woodtite Company manufacture specialties known as Spoktite, Toptite, Kantmar Autowash, Gasketite, and other auto accessories for which there is a wide demand in Canada.

Plant Near Completion

Canada Western Cordage Co., New Westminster, Will Be Operating in the Near Future

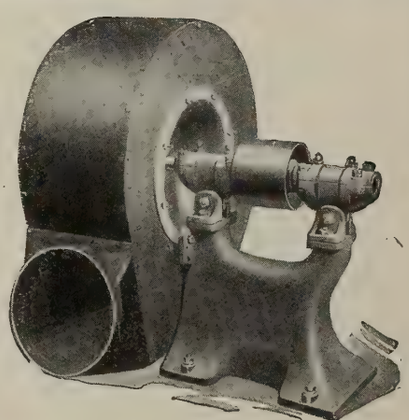
The buildings for the plant of the Canada Western Cordage Company at New Westminster are nearing completion and it is expected they will be in operation shortly. The loan of $200,000 from the British Columbia Department of Industries is assured and the company consequently will not be hampered by the lack of funds. Brig. Gen. V. W. Odlum was recently added to the directorate of the Company, as representative of the Provincial Government in connection with the disbursement of the government loan.

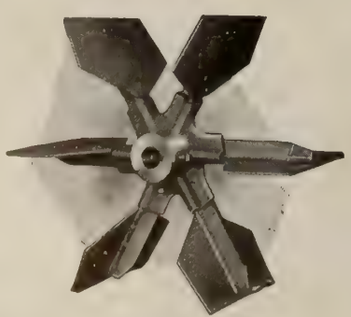
British Company's Enterprise

J. S. Fry & Son, Limited, Chocolate and Cocoa Manufacturers, Secure Plant in Montreal

The Montreal plant of Carriage Factories, Limited, operated under the name of the Heney Carriage & Harness Co., has recently been acquired by J. S. Fry & Sons, Ltd., the well-known British manufacturers of breakfast cocoa,

"CANADIAN"
MILL EXHAUSTERS
Handle Any Loose Material





THE Canadian Standard Mill Exhausters will handle any kind of material efficiently — sawdust, shavings, cotton lint, or stringy material, gases, fumes, smoke, etc.

They are adjustable to any angle of discharge; have universal type of wheel; carefully constructed self-aligning oil-ring bearings.

Catalogue 410-14 gives technical data and prices.

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The Canadian Blower & Forge Co. Ltd.

Kitchener, Ont.



Manufacturers, PREVENT Big Fires by "nipping them in the bud," with

IMPERIAL FIRE EXTINGUISHERS

(Every "IMPERIAL" bears the Underwriters' label)

If your factory burns, how will you fill orders during the long period of rebuilding? How will you hold your customers? How will you hold your employees? Your ***Insurance*** won't do all this!

Every Insurance Company makes an allowance on the premium rate for the installation of APPROVED Extinguishers.

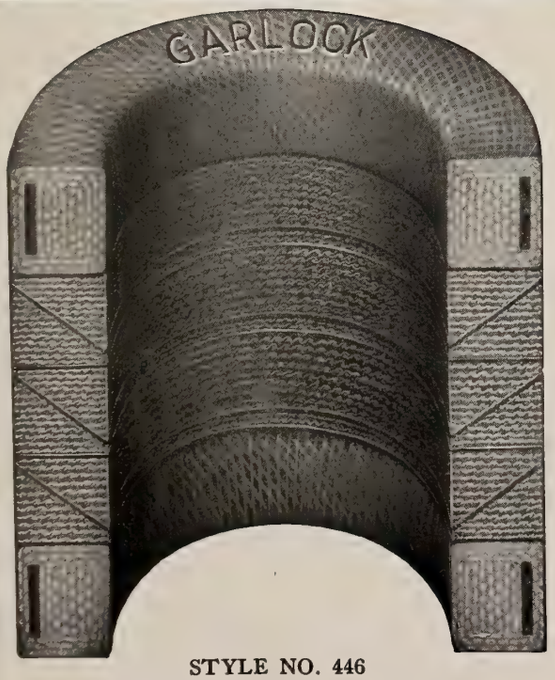
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115 Sumach Street - TORONTO, Ont.



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FOR PACKING

High Pressure Steam Rods
Use Garlock Style Number 200

Medium Pressure Steam Rods
Use Garlock Style Number 446

Low Pressure Steam Rods
Use Garlock Style Number 333

High Pressure Steam Joints
Use Garlock Style Number 950

Ordinary Steam Joints
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Chromic Acid Black Paint

as a preventative of rust on all metal surfaces. Specified by architects and engineers and used on structural steel throughout the country. Write us.

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Makers of Paint and Varnish since 1842

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etc. The latter will secure possession in the course of a few weeks and as soon as possible will start manufacturing operations.

In the meantime announcement has been made that arrangements have been completed for the association of the business interests in Canada of the Walter M. Lowney Co. of Canada, Limited, and J. S. Fry & Sons, Limited. The identity and good-will of each firm will be maintained, but economies will be effected through the association, both in the purchase of raw materials and in the marketing of the finished product. A Canadian corporation, J. S. Fry & Sons (Canada), Limited, has been established to conduct the business of the Fry Company.

Branch at Gravenhurst

Rubberset Co., Limited, Toronto, Take Over Plant for Manufacture of Wooden Handles

The Rubberset Co., Limited, Toronto, have acquired property in Gravenhurst with a view to establishing a branch industry for the manufacture of wooden handles for use in paint, lather, tooth and nail brushes. The size of the plant is approximately 40 x 250 feet with various additions, kiln facilities, etc. The company expect to start operations within the next two months and will employ about fifty hands.

Have Completed Addition

John Palmer Co., Limited, Fredericton, N.B., Now Occupy Large Extension to Their Plant

During the past fall and winter the John Palmer Co., Limited, Fredericton, N.B., tanners and manufacturers of oil tanned footwear, have erected an additional wing, 50 x 100 feet, three storeys and basement, similar in construction to the main building. The building was completed in February. The extra space was required to take care of the general expansion of business on regular lines of shoepacks, moccasins, farm and sporting shoes. During the past six months from 50 to 60 new names have been added to the payroll.

Doubling Capacity

Canadian Postum Cereal Co., Limited, Windsor, Make Addition to Grape-Nuts Building

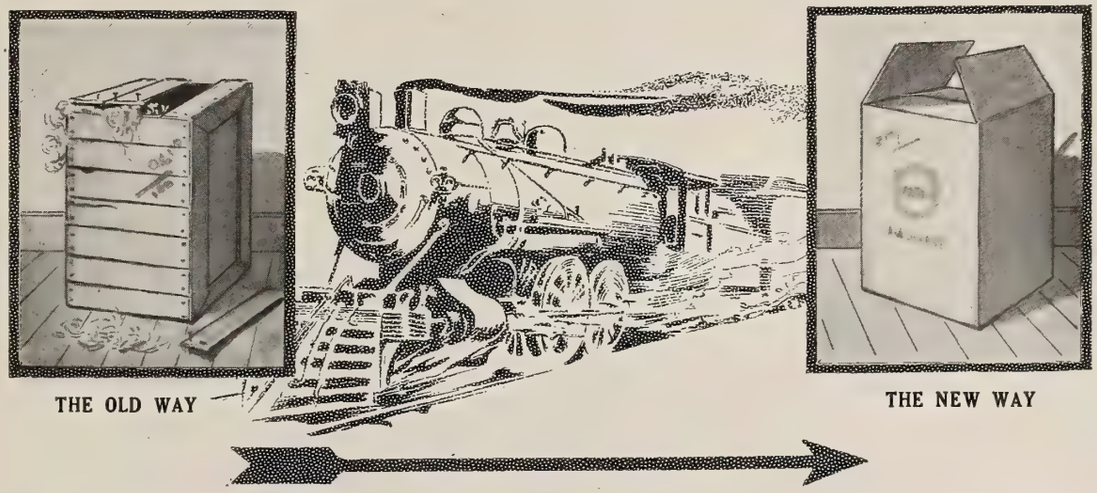
An addition, which will practically double its capacity, will be made by Canadian Postum Cereal Co., Limited, Windsor, to their Grape-Nuts process building. This will be 80 x 146 feet and is required by the extensive demand for export. The company are also putting an addition, 84 x 98, to their warehouse for the purpose of stocking sufficient goods to take care of the demand in the busy season.

A Fine Installation

The Brown Boggs Co., Limited, Hamilton, Have Plans for Wash, Lunch and First Aid Rooms

Additions to their foundry which will more than double their present output, are to be made by the Brown Boggs Co., Limited, Hamilton. The installation will eventually include a 25-ton travelling crane, a new heating system and all the latest improvements in foundry equipment and shop conditions. There will be a wash-room and lunch-room, 64 x 20 feet, finished in white tile with steel lockers, enameled wash basins and space for ten shower baths. There will also be a first-aid room large enough for three stretchers, fully equipped to give aid in any kind of accident. This equipment will be one of the finest foundry installations in Canada.

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The Preston Woodworking Machinery Co., Limited, Preston, expect to complete a 100-foot-square addition to their plant this spring. They are forced into this extension to take care of orders which are much beyond the capacity of their present plant.

H. J. Jones' Sons, Limited, lithographers, London, will make an addition to their plant, 40 x 90 feet, two storeys and basement, to be used for extension of business. It will be ready in the summer.

Valleyfield Coated Paper Mills, Limited, have been incorporated, with capital of $300,000, to take over and operate the National Paper Co., Limited, Valleyfield, Que. The company have completed an extension, 36 x 100 feet, and have added equipment increasing output by about 50 per cent.

The Toronto Carpet Manufacturing Co., Limited, are increasing the capacity of their power-house and are erecting a new dye-house.

The firm name of the Ham & Nott Company, Limited, Brantford, has been changed to Ham Brothers, Limited, and the capital stock has been increased to $1,000,000. The change is one of name only, and will not affect in any way the control or policy of the company.

The Prest-O-Lite Co., of Canada, Limited, are erecting a two-storey battery warehouse and assembly plant on Tache Avenue, Winnipeg. It is only a small plant costing approximately $25,000 and is purely for storage and assembly of the company's product shipped to Winnipeg knocked down.

An industry which has been coming to the fore during recent years in British Columbia is the manufacture of fish oil and fertilizer from dog fish, fish scraps and refuse from the canneries. A plant for this purpose is now being operated at Rendezvous Island by Mr. Johncox, and another plant for carrying on the same business is expected to be in operation soon under the management of Mr. J. B. Jardine.

Plans have been completed for the construction of a $10,000 addition to the already extensive premises of the Vancouver Knitting Company in Vancouver.

A new plant for canning tomatoes, apricots, peaches and apples, is proposed for Summerland, B.C. The intention is to interest local capital in the construction and operation of the new plant.

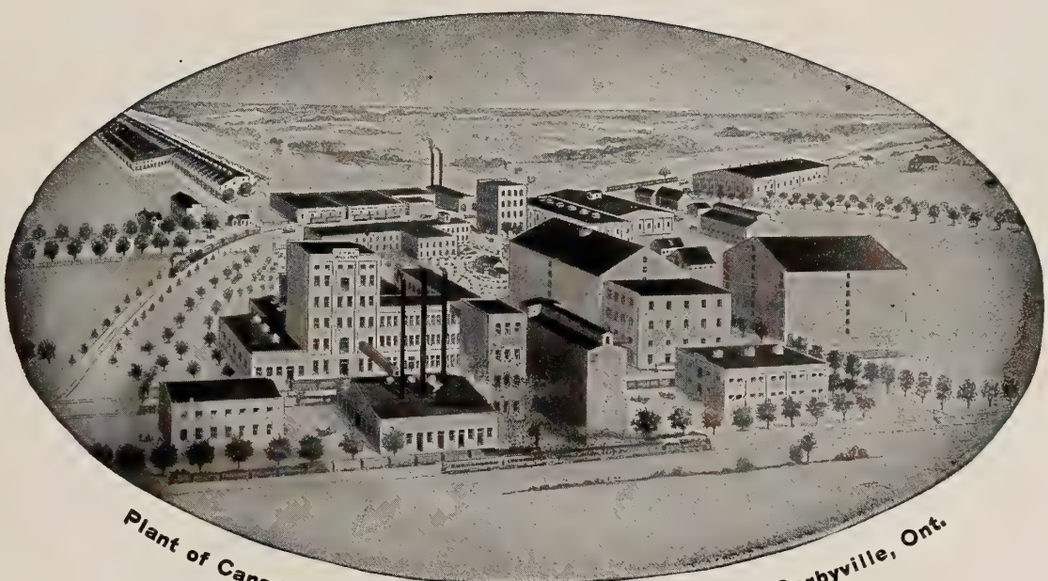
It has recently been announced that the B.C. Marine Limited of Vancouver have increased their capitalization to $1,000,000, and propose extensive alterations and improvements, with a view presumably to taking up shipbuilding on a larger scale.

The Western Canada Woollen Mills are installing machinery at their buildings in Clark Drive, Vancouver, and expect to be in operation this month.

The first unit of the plant of the Britannia Wire Rope Company on Granville Island, Vancouver, is now nearing completion. This building is 120 ft x 200 ft in size, and the contract price is $40,000. As soon as the new building is completed it is expected that work will be commenced on the necessary wire rope machinery now en route from England.

Contracts for the Canadian Carbonate Co's new plant at Vancouver report satisfactory progress and it is expected that production will be started not later than June.

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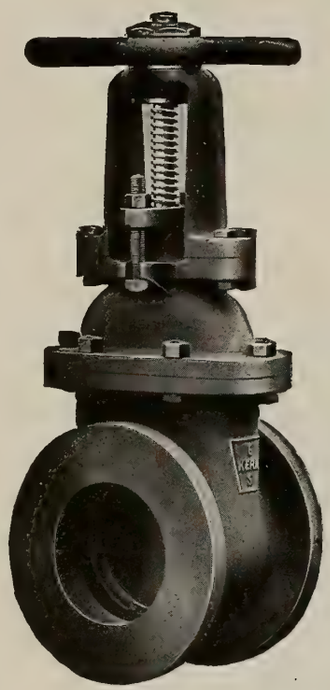
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SELLING IDEAS TO EMPLOYEES

An American manufacturer believes that it is advisable to move quietly and without urging in getting employees to take up new ideas. For example he has introduced a shoe repairing department and each year sells employees their potato supply, but it took a long time to get them interested in these two plans.

(From "Factory.")

That a man cannot do good work when his feet are not properly shod is a pet theory of William L. Ward, President of the Russell, Burdsall and Ward Bolt and Nut Company.

But Mr. Ward did not merely believe it and let it go at that—he put his theory into practice. He ordered that a cobbler be hired and space be provided for him in the plant. Then he practised another theory of management which has become a policy in his company—he had a simple notice posted announcing to employees that the cobbler was there, that he would fix their shoes and the footwear of their children, and that he would do it at cost.

Then he waited. "Announce a move and then quit talking about it. Let it have its effect naturally and gradually. Then you'll avoid the appearance of forcing something upon employees that they don't want," Mr. Ward says.

Well, that's the policy he followed in this cobbler case and four or five weeks went by and the cobbler was paid his wages, but he earned none. And still Mr. Ward stuck to his announce-it-and-quit-talking policy. The notices on the bulletin boards were beginning to yellow at the edges when a foreman left a pair of shoes with the waiting cobbler. And then another, and then gradually the more cautious came in till in only a short time after the ice was broken the shop was doing a large shoe-repair business which has held up ever since.

With this plan in effect there is little excuse upon the employee's part for a boost in the accident rate or an increase in illness due to out-at-the-toe shoes or those having flimsy, leaky soles.

Mr. Ward has been successful before in getting plans started, that involve some action on the part of the workmen, by letting the idea soak in slowly with no attempt to force the issue. He says that some workmen are suspicious of anything new. They want to walk all around a thing and size it up from all sides before committing themselves. This takes time, but it's a good management policy to be patient in such cases, Mr. Ward says.

For instance, here's an example where the reward didn't come for over two years. Some years ago Mr. Ward thought it would be a good plan to buy potatoes in quantity and sell to employees at cost. So one fall he bought a large quantity and posted a simple announcement. Only a very few workmen bought, however.

But no follow-up notice was ever put up. Those who wanted to, bought—the rest were not urged. He sold what were left to retailers in the town. The next year he repeated the plan even to the simple notice on the bulletin board. This second year there were a few more customers, but still a surplus of potatoes.

But in the years following it has been difficult to get enough potatoes to supply his employee demand.

Doesn't all of this tend to emphasize the fact that management not only involves getting the idea, but a study of sales methods in selling it to the workman? And letting a good plan sell itself often has some distinct advantages.

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INCREASE IN JAPANESE SHIPPING

Japan's fleet increased by about forty per cent. both in number and tonnage during the war. However, not a single good passenger steamer was added, only standardized freighters of certain types being built. Many things are yet to be done by the country if she wishes to maintain the trade captured during the war.

(From "American Industries.")

Including the vessels registered in her colonies Japan's total fleet numbered 11,943 aggregating 2,419,928 tons gross, at the end of 1914. The fleet has increased greatly since that time, and at the end of 1918 the total number of vessels was 16,676, totalling 3,388,085 tons. It will be seen that the fleet has increased by about forty per cent. both in number and tonnage.

A Temporary Slump.

Following the conclusion of the armistice the shipping market slumped and a number of shipyards suspended their operations or were closed. This slump was, however, only a temporary phenomenon, and the shipping market will surely improve, for it will take considerable time to make good the loss of tonnage suffered by the belligerents during the war and to ship supplies of foodstuffs and other materials required by the European countries. As a matter of fact, there has recently been a steady advance in freight and charter rates. The shipbuilding industry has also become active, and in addition to the vessels for the United States much tonnage is under construction. The ships which are now on the stocks alone amount to about 400,000 tons gross. The activity in the shipping and shipbuilding industry is a matter for congratulation, but when we consider the cause of this activity and the seaworthiness of our vessels it is impossible for us to remain idle.

It is superfluous to say that the activity in Japan's shipping trade is due to the effects of the war, which has led to the withdrawal of foreign shipping lines from certain quarters of the world and which has increased the world's demand for tonnage. The situation must change when European and American countries have resumed their shipping services in various parts of the world, and when foreign countries are in a position to build ships for other countries.

Only Freighters Built.

Not a single good passenger steamer was added to Japan's fleet during the war; only standardized freighters of certain types were built. The Japanese shipbuilders gained experience in building such steamers within a comparatively short space of time. They secured no additional experience in building vessels of a superior type. Many things are yet to be done by us if we wish to maintain the trade which we captured during the war and to further extend our activities against the competition of foreign countries. Among other things, restrictions on the employment of a certain class of ships should be removed in order to promote the development of Japan's shipping, and this is the reason why the Government has recently extended the areas of the near-sea route beyond the bounds of which second-class cannot sail.

During the war, vessels were generally built hastily and many ships were put to too great a strain in war time. Marine officials, should, therefore, exercise a greater care in inspecting the seaworthiness of craft.

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Possibly a little higher in price but better value

Lightning Rods for Factory Protection

Continued from page 87

the peak to get to the rod, but travels downward along the wet conducting roof—it will probably follow a rafter if the roof is dry—and then along the eave trough and water spout then jumping from the spout to the ground, or into the basement, as is more often the case, frequently killing stock and sometimes firing the building. If there are no troughs or spouts, it follows the posts, shattering them more or less and frequently causing fire. Five years ago, when Bulletin 220 was written, this was all pointed out, yet many are still rodding buildings in the same old defective way.

In December 1918 the company with which I am now identified, offered me my present position. At the college scarcely a week went by but someone wrote me asking if their buildings were properly rodded. In many cases they were not, and it vexed me sore to know that so much improper rodding was being done, chiefly because the men doing the work in those cases were ignorant of the scientific principles involved, and so could not really be expected to turn out a scientific job of rodding. Many times in the past five years I had thought seriously of quitting the college and entering the lightning rod business, with a view to trying to put it on a scientific basis. But each time I was confronted with the need of capital—the one thing that a professor at the college can never have if dependent on his salary.

No Rule of Thumb can be Given

Grounding from the peak is not the only defect existing in much rodding already done, and still being done. The principle to be kept uppermost in mind when devising a plan for a building is: To provide a system that will prevent strokes in all cases where prevention is possible, and which, at the same time, will carry off harmlessly any strokes that cannot be prevented. For devising such a system no rule of thumb can be given. Each building must be considered individually, for no two are constructed alike. All the eave-troughs, water-spouts, roof gutters, water systems, structural steel, and other metallic portions of the edifice must be connected up in such a way that when a stroke occurs it cannot find any place to jump. It finds all conductors connected in the system and all grounded, thus providing continuous passage to the ground along all possible paths. If the current finds no gap to jump, it can do no harm. Recently I spent two days starting one of our dealers. We studied out systems for several large, complicated buildings in his territory. He has been rodding for ten years, and after getting a grasp of the scientific principles and seeing the importance of working in harmony with them, and learning how to do so, his verdict was that he had been working in the dark all those years. And he is one of the best rod men I have met, being the secretary of a real live mutual insurance company and engaged in other lines of business as well. If he was working in the dark, there are still many others who are doing so.

Since the above was written I have received a report of a so-called rodded building being burned—a barn 54 x 66, with two additions 16 x 46 and 12 x 44, and only one ground rod

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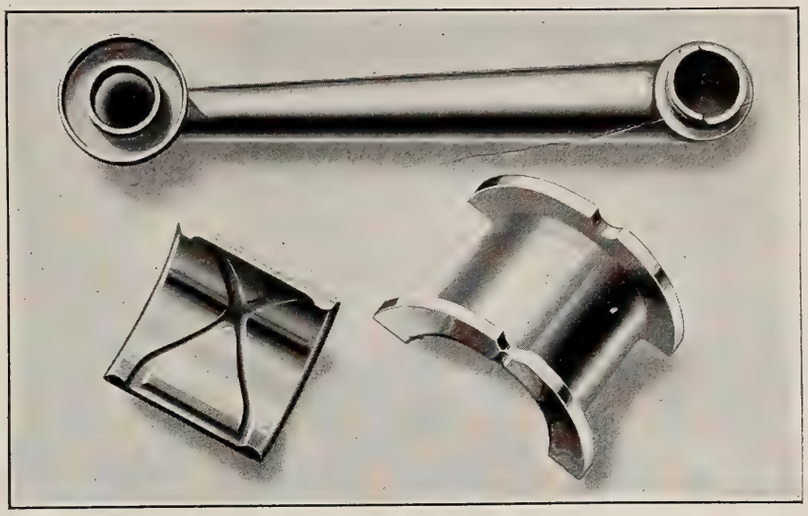
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for that great area. Any man or company doing rodding like this to-day should be open to prosecution.

Two Kinds of Electric Charges

Science lies at the bottom of lightning rods and rodding, as explained. The laws of science, on which the practice of rodding depends, will now be considered.

Electric charges in the thunderstorm are of two kinds, positive on the cloud and negative on the earth. A positive charge attracts a negative and vice versa. Similarly like charges repel one another, e.g. positive repels positive and negative repels negative, giving us the law that "like charges repel one another and unlike charges attract." From this law several very important results follow.

First, thunder clouds travel low because of the attraction between the cloud and earth charges. And as these charges increase the cloud is pulled lower and lower until by and by the distance is short enough and the electric pressure great enough that the electricity jumps from the cloud to the earth, heating the air white hot as it does so. This is the lightning flash.

Secondly, the earth's negative charge is located directly under the cloud, and travels along as the cloud moves forward. When the earth's charge finds a building or a smoke-stack it is drawn up on the structure by the attraction of the cloud's charge, which often brings them close enough together to cause a flash between the two charges.

Thirdly, electric charges reside on the surface. Take the cloud for example. Since every little particle of positive repels every other, none of it stays in the centre of the cloud, each particle being driven to the surface by the repulsion of all the others. Similarly the negative charge on the building resides on the surface.

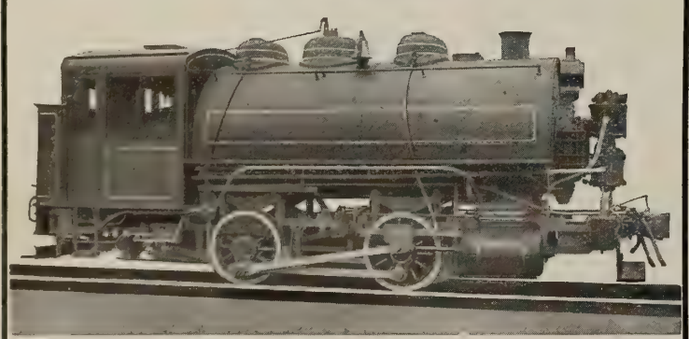
Fourthly, "electricity leaks off points." Why does it not leak off a round ball? Because the air offers great resistance. But when there is a point on the charged body particles of electricity get directly behind those on the point and hence are able to push them off into the air in spite of the resistance. This can all be illustrated by an electric machine; and the charge leaves the point so rapidly that it makes a hissing sound; and if the experiment is done at night one can see a blue flame at the points. In this connection a very interesting occurrence was related to me on July the 19th. During a thunderstorm one night not long ago, a dealer was talking to an unbeliever in lightning rods. They stepped outside to watch the storm and to their surprise saw a streak of blue flame two or three feet long shooting off each lightning rod point. The unbeliever bought lightning rods for his own barn next day. The names of both these parties will gladly be supplied to anyone wishing to make personal enquiry. Since electricity leaks off points, rods if properly installed will prevent strokes in most cases by reducing the potential below the breaking point. Sometimes owing to special conditions a building becomes charged so suddenly that the points cannot allow the charge to leak off quickly enough to prevent a stroke. In such cases the rods if properly installed will carry off the flash without damage.

Lightning Travels on Surface

Fifthly, not only do charges reside on the surface, but when there is a lightning flash, to a rod the current of electricity travels on the surface, not through the body of the rod.

Another law of electricity that is very important from a lightning rod standpoint is that some substances "conduct" electricity very readily. They are, therefore, called "con-

PUT YOUR PROBLEM UP TO US

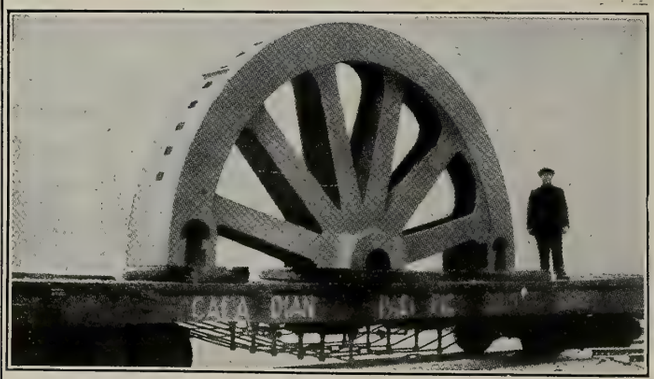


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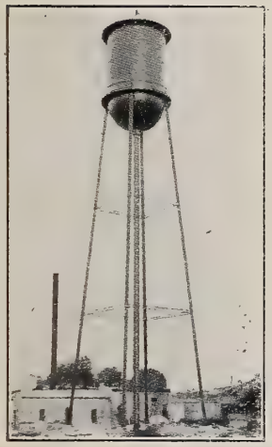
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ductors." Others, like air, offer great resistance to the passage of electricity and hence are called "non-conductors." Wood is a conductor, but a very poor one, so much so that it is often called a non-conductor. Copper, for example is about six or seven times as good a conductor as iron.

On July 9th, 1916, I was driving an automoible on the 8th line of the Township of Maripose, Victoria County. Just as we reached the place we were going to visit, a very violent thunderstorm came on. I drove the car into an open shed under one corner of the large barn. It began to rain so heavily that I decided to wait till the storm slackened. While waiting I went to tighten a nut and just when the wrench was about an inch from it, a flash of lightning occurred some distance away, and to my surprise I received a distinct shock from the car and saw the spark about an inch long. The car, on rubber tires, was insulated, and the flash induced a charge on it, which passed to the ground through the wrench and my body. If the wrench had been in contact when the flash occurred I would neither have experienced a shock or seen a spark. If there had been gasoline fumes or other highly inflammable material where that spark occurred, there would have been a fire. It is to prevent these sparks by induction that we advise connecting up metal portions of the structure. Induction is momentary, it occurs only while the original current is starting and liekwise while it is stopping. Induction plays a very important part in devising a scientific system of rods for a building.

One step further we must go: Not only does a lightning flash produce induction on metallic bodies in the vicinity, but when a flash starts along a conductor it induces a momentary back current in the conductor which is carrying the original current itself and hence is called "self-induction." Likewise when the flash is stopping there is self-induction. Self-induction is a very contrary sort of chap—he acts against the main current when it is starting, thus being somewhat similar to resistance, and holding the main current back; but when the main current tries to die out then self-induction switches round and acts with it, thus actually increasing the intensity of the discharge.

The chief function of lightning rods is to prevent strokes. For this the fundamental principle is to use a scientific rod put on scientifically so that the charge on the building can most easily pass to the rod and leak off the points quietly into the air where it is attracted upward to join the positive in the cloud. In all cases where the building tends to charge up gradually, it is possible to prevent strokes, but when the building charges instantaneously as is sometimes the case, then the points haven't time to let the charge leak off, and a flash occurs. In such cases it is necessary to have the system so designed that from every part of the building the rod forms the easiest path to the earth. When it is so designed the flash is just as harmless as if it had never occurred.

The old system of rodding buildings consisted in placing cable along the peak and running straight down the gable from the peak into the ground at one or both ends. Scientifically this is wrong. To be sure it will give some protection but not the best. Even when dry the roof is a conductor though a poor one. Lightning does not always strike the highest points, as already instanced. Suppose it strikes the eave, or part way between there and the peak it will not go up the roof against nature to get on the rods, but will follow the poor conducting wood to the eave, along the eave-trough and down the water spout, whence it jumps to the ground. If there is water coming out of the spout the flash may follow it to the ground and escape harmlessly, or if it finds an easier way by jumping into the basement, along pipes to the floor it will do so.

Scientific rodding will always ground from the eaves, and



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connect the cable with the eave-trough and the bottom of the water spout. Then whether the flash occurs to the peak, the slant roof or the eave it finds a conductor to take it into the ground. On an oblong building at least two grounds are necessary at diagonally opposite corners. On complicated buildings the number varies with the design of the buildings.

For complicated buildings it is not an easy matter to design a scientific system. Every important metallic part of the structure that is near the cable, such as roof gutters, eave-troughs, water pies, structural steel, must be considered and connected up and grounded in accordance with the laws of science in order to give the best protection. The induction on any of them during a stroke may cause a spark and fire the building if not scientifically protected; or they may form part of a path for the main charge, which would then have to jump a gap, again causing damage or fire. Hence the only safe course is to make them all a part of the system.

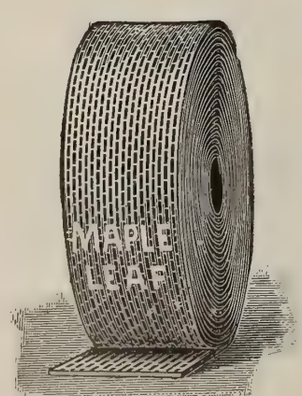
On wooden, slate or patent roofs it is necessary to run the cable from the grounding up to and along the peak, with a point every 20 to 25 feet. Flat roofed buildings should have cable placed around the roof, with points at suitable intervals. And all prominent features such a cupolas, chimneys, dormers, etc., should have points on them, all connected to the cable. On metal roofs it is not essential to run the cable over the roof, but simply connect it to the metal at the eaves and then run it into the ground deep enough to reach permanent moisture. Since the metal roof has such great electrical capacity, it is advisable to use more groundings than with the wooden roof. On very large buildings it is often customary to attach a copper plate to the end of the grounding cable and bury this deep in a bed of powdered charcoal which has a high affinity for moisture and insures a great electrical capacity for the grounding.

Copper rods are the best because more durable than iron or aluminum, and scientists, e.g., Sir Oliver Lodge and Dr. Steinmetz, claim that flat conductors are better than round becausce they have more surface; one property of electricity being that high potential currents like that in the lightning flash travel on the surface, it necessarily follows that a flat cable has a much greater carrying capacity than the same strands twisted in a round cable. Besides there is less self-induction on a flat cable than on a round, hence less resistance, and hence less danger of side flash from it in case a stroke does occur to it.

In Michigan a number of companies insuring farm buildings have divided them into "rodded" and "unrodded" classes assessing each class for its own losses. They find the assessments in the rodded class are about one-third less than on the rodded. The Mutual Fire Prevention Bureau, Oxford, Michigan, which is an association of ten companies insuring mills, elevators and warehouses throughout the United States reports that in eight years lightning has been responsible for more losses to members of the association than any other single cause. To induce their patrons to protect their buildings they give a reduction in premium of 10 cents per $100.00 of risk. What lightning rods do for farm buildings, mills and elevators, they will also do for other classes of buildings.

Members of the Association who are contemplating a visit to the old country are invited by the *Canadian Export Pioneer*, Craven House, 113, Kingsway, London, W.C. 2, to make use of their office for the forwarding of correspondence. A line to the editor of the *Pioneer*, advising him of their intention and probable date of arrival would facilitate the arrangement.

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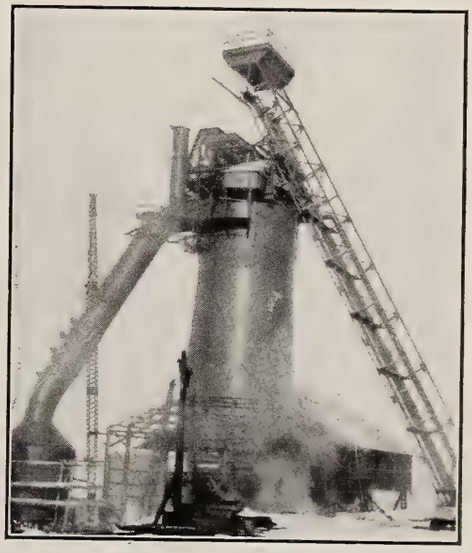
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Labor's Requests and the Government's Answer

Continued from Page 86

203-204, Congress Proceedings, 1919. The importance of good housing is now generally recognized and whilst many of the suggestions incorporated in the report would be subjects for Provincial enactment and administration, yet it is urgently requested that consideration be given to the suggestions so far as they are within the scope of Federal enactment or legislation, in order that the fullest assistance may be given to workers to secure their own homes.

RURAL MAIL CARRIERS

During the past year requests have been made for improvements in the conditions under which rural mail carriers work. The Trades and Labor Congress of Canada, at its Hamilton convention, endorsed the requests of the Dominion Rural Mail Carriers' Association for improved conditions as embodied in Resolution 107, page 209, and Resolution 72, page 212, Congress Proceedings, 1919. We, therefore, request that legislation be enacted in order that the terms of service can be altered, abolishing the contract system, and allowing for payment to men engaged in this service an adequate remuneration and assuring them of security of service so long as they satisfactorily perform their duties.

INTERVENTION AND SELF DETERMINATION OF NATIONS

Resolutions 68, 110, 111, page 221, Congress Proceedings, 1919, voiced protest against any policy interfering with the self-determination of nations and the decision of the Congress is reported as follows:

"That this convention go on record as protesting against military intervention in countries which, after the termination of the world conflict, change the form of their social structure, and further expresses itself in favor of the self-determination of nations."

HALIFAX DISASTER RELIEF COMMISSION

Representations have been made from time to time to the Congress for further consideration of the grants made to the sufferers of the Halifax explosion. The Congress endorses these requests, which are detailed in Resolution 113, page 210, Congress Proceedings, 1919, and solicits your sympathetic consideration.

FINDINGS OF MATHERS INDUSTRIAL RELATIONS COMMISSION AND NATIONAL INDUSTRIAL CONFERENCE

We request that immediate steps be taken to bring into effect the recommendations of the majority report of the Mathers Industrial Relations Commission on subjects which we have not otherwise presented to you, and we would also ask that the recommendations made by the National Industrial Conference on the above subjects should be given full consideration and immediate action taken to bring them into effect. (Resolution 36, page 211, Congress Proceedings, 1919.)

PENALTY FOR FAIR WAGE CLAUSE VIOLATIONS

We reiterate our previous request that the Fair Wage Clause should be amended to provide penalties against contractors wilfully violating fair wage clauses.

CIVIL SERVANTS' BONUS AND EQUALITY OF PAY

Objection is taken to the method of distribution of the bonus by the Civil Service Commission and demands made that men and women doing equal work should receive equal salary and bonus. (Resolution 24, page 189, Congress Proceedings, 1919.)

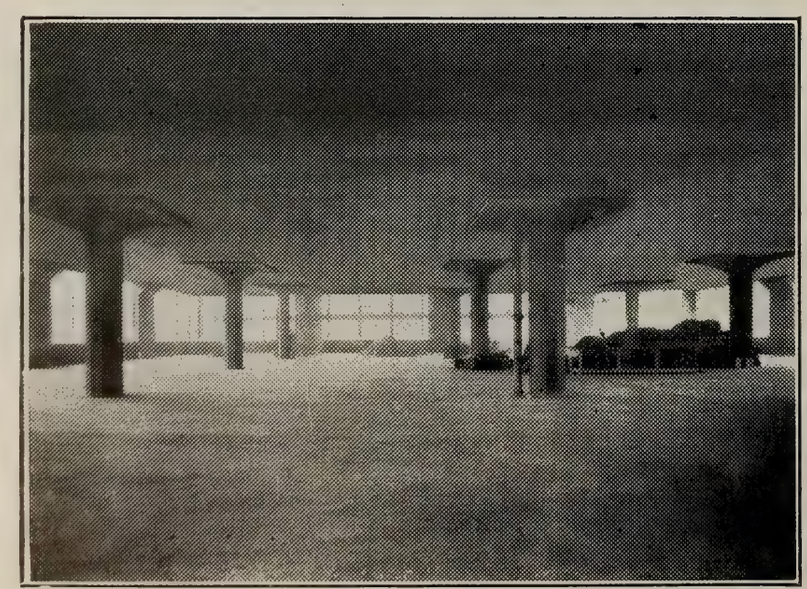
SOREL SHIP YARDS

Resolution 79, page 214, Congress Proceedings, 1919, incorporates a request that the Government consider the advisability of increasing the work done in these yards, so as to cope with the unemployment situation.

AGE LIMIT OF NATIONAL RAILWAYS

It has been reported to the Trades and Labor Congress that the management of the Canadian National Railways

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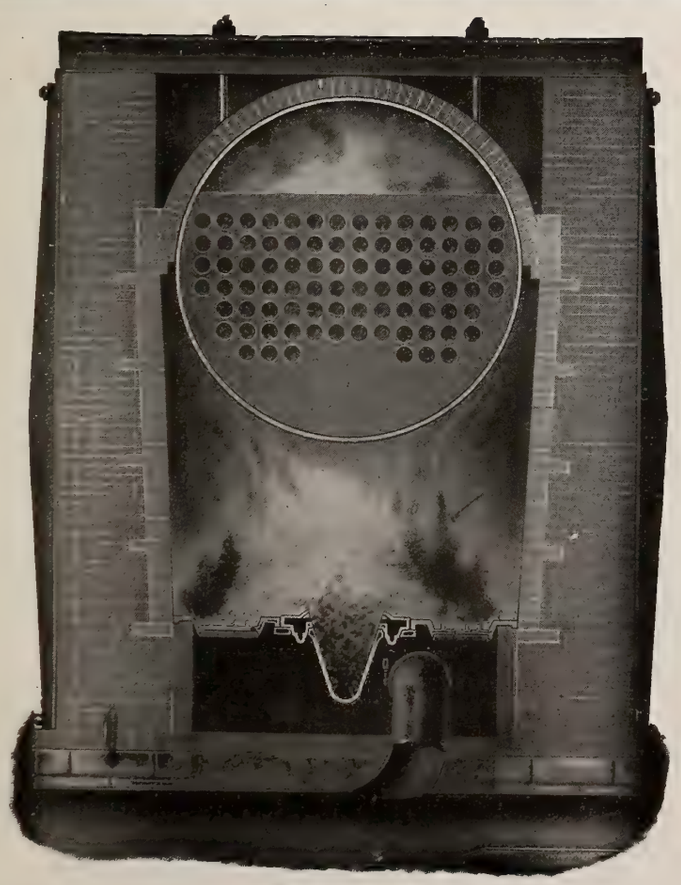
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have adopted a policy of refusing to employ men who have reached the age of forty-five. Strong protest is entered against such policy being adopted and a declaration by the Government sought on this question. The text of this protest is found in Resolution 51, page 124, and committee's report, page 214, Congress Proceedings, 1919.

CUSTOMS TARIFF ON PATTERNS

Stricter enforcement of the tariff regulations regarding patterns coming into Canada is requested, and additional regulations sought which will prevent patterns being admitted into this country free of duty, by being classed as models, and also would make the import duty applicable to all molders; patterns and core boxes for same, therefore keeping the pattern-makers of Canada more employed. (Resolution 35, page 125, Congress Proceedings, 1919.)

PROTECTION OF CAR BUILDERS AND REPAIRERS

This request for the erection of suitable buildings to protect men engaged in the above-mentioned work has been previously presented and is reiterated in Resolution 58, page 124, Congress Proceedings, 1919.

The Government's Reply

The written reply of the Government to the foregoing representations took the form of a letter from the Acting Prime Minister to the Secretary of the Trades and Labor Congress, as follows:

Prime Minister's Office,
Ottawa, Ont., March 4th, 1920.

Dear Sir—

The subjects presented to the Government by a delegation representing the Trades and Labor Congress of Canada, a short time ago, have been carefully reviewed. It is not usual to make an official reply to submissions of this nature, further than to promise consideration of the questions submitted. Without establishing any precedent, I am in this case briefly expressing the Government's views on the various subjects you have submitted for its consideration.

The permanent military forces have not been increased from five to ten thousand, as you intimate. Parliament authorized an increase to ten thousand, should necessity require, which I think was a wise precaution. The present establishment is less than five thousand men, the authorized pre-war basis. The Royal Canadian Mounted Police Force is not up to its authorized strength of 2,500 men, even including the Dominion Police, which have been absorbed into it, and both forces have been brought under one administrative head, which will promote both efficiency and economy in this service. Estimates for the maintenance of these forces will necessarily show some increase because of the increased rates of pay.

The Orders-in-Council to which you allude were purely war measures to restrain aliens and others from conduct the effect of which would have tended to curtail and retard Canada's war effort. No loyal citizen had anything to fear from them and a number of these orders were distinctly favorable to labor interests. Your observations regarding possible misinterpretations or misapplication of the amended Criminal Code are noted. The law, in my opinion, is not susceptible of the interpretation complained of, nor has it been so judicially interpreted.

With regard to immigration, the Government has already adopted the principle of careful selection of all immigrants, and the number of rejections and deportations reported for the current year is a clear indication of the care being exercised in carrying out the policy.

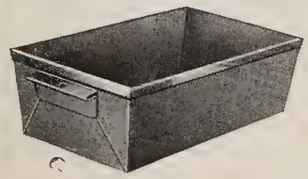
Your suggestion for representation on a Central Empire Board to deal with problems of immigration will not be lost sight of should such a board be created.

Your further suggestion respecting Oriental immigration and certain deportation provisions of the existing Immigration Act will be carefully considered with a view to determining what action, if any, should be taken in the general national interest.

The Government will also make further inquiry with a view to assisting Canadian theatrical mechanics in the direction intimated.

In regard to the right of organization, the Government has clearly stated its policy in this connection, so far as industrial workers are concerned. But employees in the

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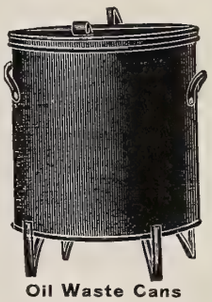


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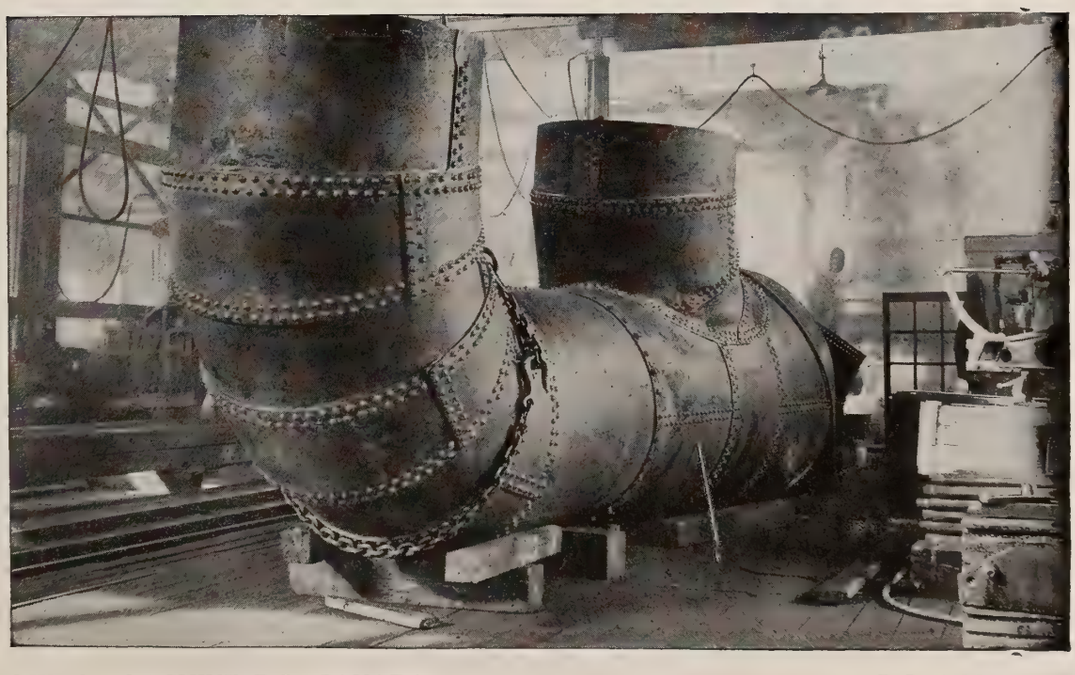
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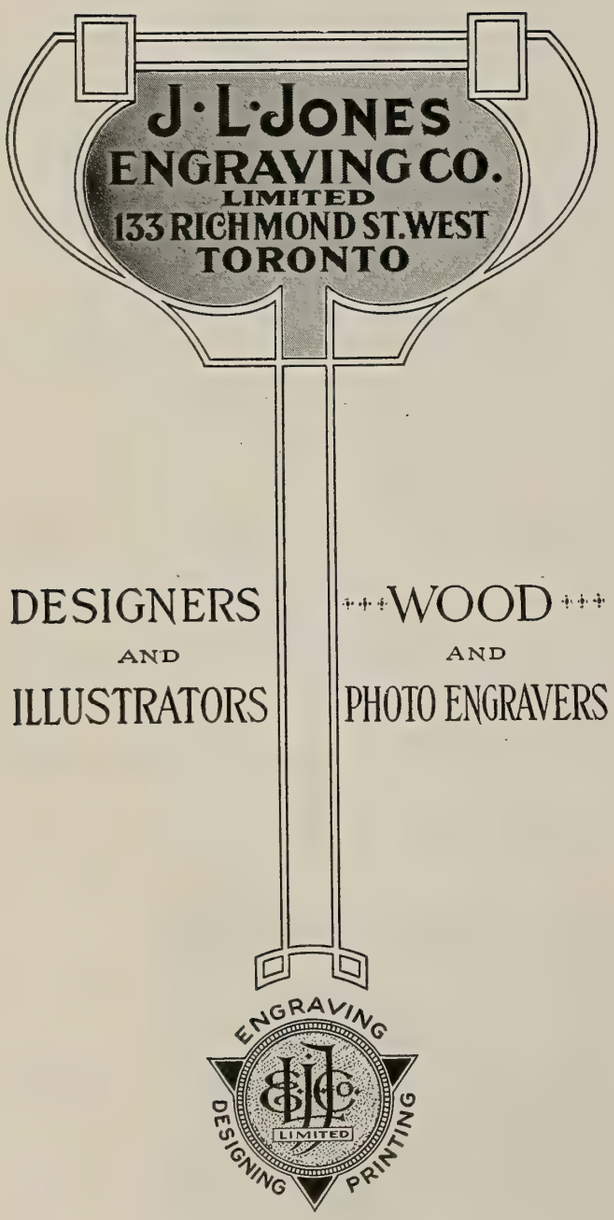
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service of the Federal Government are in a different category, inasmuch as there is no incentive from the standpoint of money profit to cause the employer, which in each case is the public, to impose unfair or onerous working conditions or rates of pay. Parliament representing all the people, labor included, has as well made provision for the fair determination of any grievances complained of. It cannot be conceded that public service employees shall be subject to control of any organization or federation of industrial workers, and become thereby liable to be involved in industrial disputes. In the administration of the Department of Labor, the Minister of that Department has on more than one occasion recognized the wisdom, on the part of both employers and employees, whether individual cases or as groups within a given industry, of meeting together and negotiating with a view to the settlement of differences existing between them.

Attitude on 8-Hour Day

As you are aware, the Peace Treaty, the terms of which the Parliament of Canada has already approved, together with the action of the Labor Conference at Washington, recommends the adoption internationally of a forty-eight-hour week or an eight-hour day. It is our firm purpose to give loyal adhesion to the terms so agreed upon. The necessity in this connection of having regard to the progress made by other countries must be apparent to all. The further question as to whether the necessary legislation is within the jurisdiction of the Federal Parliament of Canada, or of the Provincial Legislatures, is now being investigated with a view of reaching an understanding with the provinces on the subject.

The Government is glad to know that the legislation passed respecting technical education is endorsed by labor.

Referring to suggested co-operative legislation, I may say that any proposed legislation to enable workmen to buy co-operatively will receive careful attention.

In connection with the observations of your delegations respecting the registration of union labels, if you will be good enough to state generally the terms of such legislation as, in your opinion, would meet the need, the Government will be glad to give it consideration. Page 127, Congress Proceedings, gives no information on the subject.

Concerning the revision of the Industrial Disputes Act, the Minister of Labor, at our conference extended an invitation to the Congress Executive to submit its proposals in concrete form. Some amendments to the Act are under consideration by the Department of Labor and any suggestions you may desire to make will be gladly received.

Your representations respecting health regulations for painters will be referred to and inquired into by the Department of Health.

The matter of proportional representation and other amendments to the Election Act are being considered by the Federal Government, as intimated by the Prime Minister in 1919. To make election days holidays would entail great loss to the country in production and a heavy loss in wages to the workers; consideration, will, however, be given to your proposal to extend the closing hour of polls.

The Federal Government has made substantial provision for aiding the provinces in improving housing conditions.

Rural mail carriers are engaged by tender and contract. There is no present intention of bringing them within the Civil Service, as such action would clearly not be in the public interest.

Findings of Mathers Commission

Consideration is being given to the findings of the Mathers Industrial Relations Commission; also of the National Industrial Conference.

Your request concerning an amendment to the Fair Wage Clause in Government contracts is noted and the Government would be pleased to have your Executive submit its specific proposals in this connection.

As to civil servants' bonus and equality of pay, the government does not agree with your observations concerning alleged inequality in distribution of bonus to civil servants. It does agree that equal salary for equal work should be paid civil servants. It does not agree that a bonus designed to aid its employees over an emergency period should be based on the same principle. Employees with dependents needed and re-

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ceived more substantial aid than others who had only themselves to support.

Respecting the Sorel shipyards, no representations have been made to the Government indicating any abnormal unemployment situation in Sorel. The Minister of Marine will be asked to report on the question of prospective work for Sorel yards.

Referring to the question of age limit on National Railways, there is no age limit prescribed by law regulating the employment of railway employees. The Canadian National Railways are being operated under a corporate management, who bear the same responsibility towards the employees as is the case on privately owned lines. The Government has declined to interfere in any way with the details of operation as regards the employment of men or discipline, but hold the management responsible for efficient service.

The railway employees are largely organized, and have their duly elected representatives to present their requests to the officials. There would seem, therefore, to be no necessity for legislation on the subject named. If an altered regulation is desired by the employees, they should first submit their request to the management for adjustment by negotiation.

Referring to customs tariff on patterns, the Ministers of Customs and Finance are inquiring into the question of importation of patterns duty free, as models, and will act according to the nature of the information received.

The question of protection of car builders and repairers would seem to be a matter proper to be taken up with the railway managements. If the railways have been approached and have declined consideration of your request, it would seem then to be a matter within the jurisdiction of the Board of Railway Commissioners, who give attention to the equipment and appliances necessary for the safety of the employees.

Your views on the Welland Canal question will receive due consideration.

The Prime Minister recently made a pronouncement on the subject of representation on National Boards of Railway Directors, which, I think, constitutes a satisfactory answer to your representations.

Yours very truly,

GEORGE E. FOSTER,
Acting Prime Minister.

P. M. DRAPER, ESQ.,
Secretary, Trades and Labor Congress of Canada, Ottawa.

Assisting Industry

Provincial Government of British Columbia has a Department to Help in Establishing New Industries

During 1919 the British Columbia Government established a Department of Industries for the purpose of investigating industries in need of financial assistance, and for the making of loans to such concerns when the project was considered feasible and the promoters deserving. Major D. B. Martyn, D.S.O., M.C., was appointed by the Government as Industrial Commissioner to administer the new department.

The first report of the Department of Industries has just been made public, and this report shows that a total of 222 applications have been made to the department for assistance, and of these applications 19 have received assistance; the loans varying, in individual cases, from $500 to $200,000, the latter sum having been loaned to the Canada Western Cordage Company, a concern promoted and managed entirely by returned soldiers, and which is now building a plant at New Westminster for the manufacture of rope. Other industries which have been assisted include one toy factory, two furniture factories, and a returned soldiers' canning company. The majority of concerns which have received assistance are managed or promoted by returned men.

The Department of Industries is also doing a good work in making known abroad, principally in the British Isles, the industrial requirements and openings in this province.

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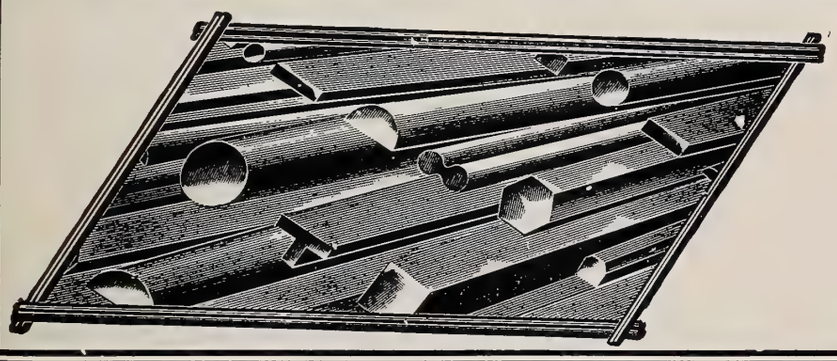
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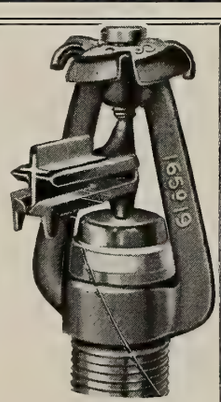
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Lumbering in British Columbia

(*Continued from page* 75.)

is estimated to be $200,000,000. This is largely controlled by investors in Eastern Canada, Great Britain and United States.

The prices for lumber since the war have been abnormally high, but despite this, the demand has been strong, and mill operators of British Columbia were able to take advantage and profit from the premium on the United States dollar, exporting large quantities of lumber across the boundary line. On the other hand American investors took the opportunity offered by the exchange rate to make extensive purchases of timber limits.

The prospects for the future of the pulp and paper industry are unusually bright. The Oriental market is increasing rapidly, while Australia is a customer of increasing importance.

The paper shortage, not only in Eastern Canada, but in Europe, is bringing more forcibly than ever the great wealth of British Columbia pulp woods before capitalists and manufacturers. Recently representatives of British newspapers came west to survey the prospects for the establishment of paper mills to insure an adequate supply of newsprint for the journals they represented. It is confidently expected that within the next two or three years additional mills will be in operation. Water power for such plants is available on numerous streams close to the spruce limits of the coast.

In 1901, the Provincial Government as an encouragement to the industry, granted 2-year leases of pulp wood areas to bona fide applicants on generous terms, and as a result several companies were formed to start operations. They selected 354,399 acres. The conditions attached to the leases were that mills should be equipped and operated in the Province with a daily output of not less than one ton of pulp or half a ton of paper for every square mile included in the lease. The merchantable timber on these leases may be cut and manufactured under special timber leases. The rental in these regulations is two cents an acre and a royalty of 25 cents a cord on the pulpwood cut. This law was repealed in 1903.

The Mining Industry of British Columbia

(*Continued from page* 79.)

than 2,000,000 pounds monthly. Actual ore blocked out on these properties are in excess of 9,000,000 tons, while "possible and probable" tonnage has not yet been computed. It has been definitely established, however, that the ore reserves of this great property will guarantee a production of 3,000 tons daily for the next thirty or forty years—and from that on, indefinitely.

The Britannia Mine is another instance of the reward of enterprise. This mining camp was about to be deserted in 1911, when the late Mr. Grant B. Schley, of New York, took a chance on it, and by progressive methods firmly established it as the premier mine of its kind in the empire.

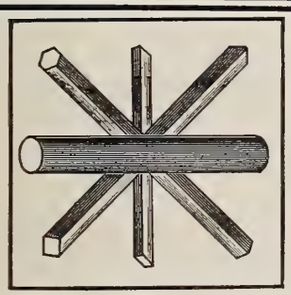
The Canada Copper Corporation at Copper Mountain, near Princeton, in the Similkameen Valley, is another low grade copper property with immense reserves which have been proven capable of maintaining production over a long term of years. Construction and development work are being rapidly pushed ahead on this property. Last year a concentrating mill was built at Allenby, where the ores from the mountain property will be treated.

It would be an impossibility in limited space to even briefly touch upon the outlook for the hundreds of mining



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2 ¼ hp. Peerless ball-bearing, split phase, 110 volt, new.
1 2 hp. Peerless ball-bearing, split phase, 110 volt, new.
4 1 hp. Peerless ball-bearing, split phase, 110 volt, new.
4 ⅛ hp. C.G.E. Westinghouse, 110 volt, 1800 rev.
3 ½ hp. T.H.E., 110 volt, 1200 rev.
2 ⅓ hp. Menominee, 110 volt, 1800 rev., new.
1 ¼ hp. Zimmer, 110 volt, 1800 rev.
1 1/20 hp., 3600 rev., 110 volt.
1 1/12 hp., 110 volt, 1800 rev.
1 1/10 hp. Emerson BA 2842, 110 volt, 1800 rev.

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2 5 hp. C.G.E., 550 volts, 1800 rev.

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1 2 hp. Century, 110/220 volt, 1500 rev.
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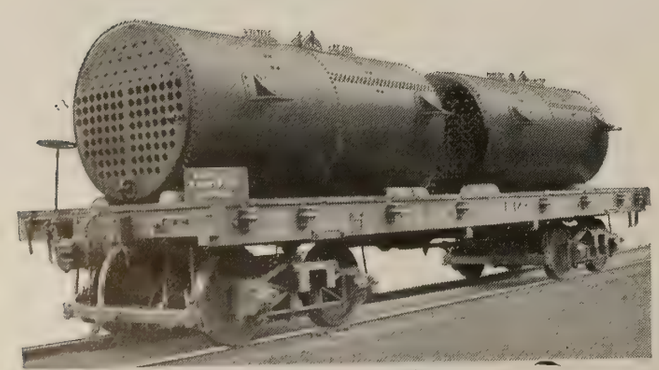
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properties in British Columbia, or to review the resources of the different districts, but that the future is one filled with promise may be gathered from another reference to Government files:

"There is every reason to believe that 1920, will be most important to the Province in point of mining development."

Industrial New Westminster

(*Continued from page* 84.)

of these, with the exception of the Small-Bucklin Company, operate also shingle mills, and there is the Dominion Shingle Mill and a number of smaller plants. Across the river, on the south shore, is the plant of the Timberland Lumber Company.

Manufacturers of lumber products include the Laminated Materials Company, the B.C. Manufacturing Company, and the Lumber Products, Ltd. The first-named has just taken a lease from the city of a thousand feet of water front on which to build an additional plant, while the second is already building its new plant, to have double the capacity of its original equipment. Phenomenal success has attended the box industry, and the product of the Fraser River in this line has been shipped all over the world in competition with both European and Asiatic concerns.

The manufacture of lumber is carried to a still higher pitch by the Brooks Woodworking factory and the Westminster Furniture Company. The former makes a very high grade of wooden fittings, and the latter is engaged in turning native hardwoods into serviceable furniture for the home, an enterprisce for which there is a great field.

So much for the products of the forest. Turning to metal, the Heaps Engineering Company operates in New Westminster what is said to be the best equipped machine shop west of Winnipeg, together with an iron foundry; the Westminster Ironworks is also a machine shop and foundry, specializing to some extent in ornamental ironworks. Then there is the Westminster Foundry Company and a small plant making a high grade of tool steel, probably the only plant of its kind in Western Canada.

The smaller industries of the city are numerous and of a diversified nature. They include salmon canneries and cold storage plants, a fruit cannery, a plant for evaporating vegetables, a distillery making grain alcohol for industrial purposes, a brewery, a grain milling plant, a wooden shipyard and several smaller yards building tugboats and barges, and so forth.

At the time of writing two plants are under construction, in one of which particularly considerable interest centres. This is the plant of the Canada Western Cordage Company, which will manufacture rope, binder twine, and similar products. It is the only cordage plant in Western Canada, and in its inception met with determined opposition from interests which were obviously willing to spend considerable money to see the project die stillborn. The other plant is that of Cut-to-Fit Buildings Company. Plants of this kind have been established in the United States and Eastern Canada, and have grown to large proportions.

As for the industrial future of New Westminster, a volume might be written by anyone having a knowledge of the natural and artificial advantages of this port, and a grain of optimism in his mental make-up. The advantages are undoubted. Along both banks of the Fraser River and on the flat lands of its delta there is room for many great industries, with deep water. The river offers the advantages of cheap transportation, either for bringing in the raw material or shipping out the finished product, or both. The cargo ships of the world can come into the Fraser. Railway transporta-



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tion is also offered in no stinted fashion. The lines of four great railway systems converge on New Westminster. It is on the C.P.R., the C.N.R., the G.N.R., and the N.P.R. The electric line of the B.C.E.R. Company runs from New Westminster out through the Fraser Valley. All of these railways have interchange facilities. Much of the water front within the city is owned by the city. There is an abundance of electrical power and water. The city owns its own water system and electric light distributing plant.

The possibilities of establishing new industries in New Westminster and its immediate vicinity are manifold, and it is confidently expected that an era of industrial expansion is well within sight.

Charm of Victoria and Vancouver Island

(*Continued from page* 83.)

shingle mill. Lumbering for the Chemainus mills is carried on in the woods behind Ladysmith.

At Cassidy's or Granby, as it is called, the operating company constructed a model town for their employees. Here every convenience has been provided for the workmen, and the workers are housed in homes that are fitted in every way possible for their comfort.

South Wellington is another mining camp near Granby where there is a large production of coal, shipments being made to Boat Harbor.

Nanaimo, where British Columbia's oldest collieries are located, is a seven mile run from South Wellington. It is a progressive city of 8,000 inhabitants, with well paved streets, modern business blocks and fine homes. Four coal mines operate here, while limber mills and herring fisheries add to the commercial activities of the city.

Nanaimo was one of the Hudson's Bay Company's first posts in the Province, and the old blockhouse built to give protection against hostile Indians is still standing in the business section of the city. Its main streets followed the walls of the stockade which at one time stood about the blockhouse, bearing testimony for all time to the hardihood and daring of the early day adventurers who established the community.

From Nanaimo, the Island Highway passed through the old Town of Wellington, abandoned by the old Wellington Collieries Company when the coal seams gave out. Passing Oarksville the road leads through a picturesque woodland to the scenic glories of Cameron Lake, a placid body of water cupped between towering mountains.

It is on the road from Cameron Lake the famous "big timber" is encountered. This stand of trees is of such magnificence that a strong public sentiment is pressing upon the Government the desirability of acquiring the tract from the private owners to be kept as a forest park. The giant trees, from six to ten feet in diameter, and towering hundreds of feet in the air, are the delight of all travellers over the highway.

Dropping down from the ridge of the centre of the island the road leads to the two towns at the head of Alberni Canal, the one bearing the name of the inlet, the other, two miles distant known as Port Alberni. This is the largest and most enterprising settlement, being an incorporated city. Fisheries and lumber mills are the principal industries. It is the trade centre for the canal, Barclay Sound, forty miles away and a considerable portion of the west coast of Vancouver Island. It is also the terminus of the branch line of the E. & N. Railway, which extends along the east side of the island, paralleling the highway which has been briefly described here.



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Deaths Among Prominent Manufacturers

Was Welfare Worker

Late Dr. Daniel Strachan, of Imperial Oil Limited, Held Important Post

Many members of the Canadian Manufacturers' Association had come to know and esteem the late Dr. D. Strachan during his brief tenure of office as head of the welfare work of Imperial Oil, Limited. For many years a clergyman in Hespeler, Brockville and Toronto, he was selected by the late Hon. W. J. Hanna to take charge of the welfare work of the big oil corporation. This brought him into touch with the C.M.A., and his voice was frequently heard at meetings and conferences, where his fine personality and bright and humorous speeches were much appreciated. His death occurred after a brief illness on March 3.

The Late G. R. Munro

Second Vice-President of Peterboro Company, had Promising Career in Prospect

Peterboro lost a good citizen in the death on March 1 last of George Reid Monro, second vice-president of the Wm. Hamilton Co., Limited, and grandson of the founder of the company. Mr. Monro was an engineer by profession and after graduation from the School of Practical Science, Toronto, was with the preliminary survey of the Hudson Bay Railway. He was later on the staff of Kerry & Chase, Toronto, returning to Peterboro in 1911 to become engineer of the Wm. Hamilton Co. He was a member of the Engineering Institute of Canada and the first president of the Peterboro Branch of that Society.

A Pioneer Manufacturer

Late Wm. H. Frost, of Smith's Falls, was Oldest Maker of Malleable Castings in Ontario

Wm. H. Frost, president of the Smith's Falls Malleable Castings Co., Limited, who died on March 18, in his 73rd year, was the oldest malleable castings manufacturer in Ontario. He started the business in 1878 in a small way, developing it into one of the largest industries of its kind in the province. Two brothers, deceased, were heads of the Frost & Wood Co., and the family has played a leading part in the industrial life of Smith's Falls.

Stove Manufacturer's Death

Adam Hall, President of Adam Hall, Limited, Peterboro, was Successful Business Man

The death occurred at Peterboro on March 15 of Adam Hall, president of Adam Hall, Limited, stove manufacturers. Mr. Hall, who was 74 years of age, came to Peterboro in 1878 and opened a retail stove and tinsmithing business, which he conducted successfully until 1910, when he entered the manufacturing field. The stove industry, which he built up, developed into a large and flourishing business. Mr. Hall was an active and public-spirited citizen of Peterboro and had many interests in the city. Two sons, William T. and A. L. F. Hall, are vice-president and secretary-treasurer respectively, of the company.

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Recent Trade Enquiries

A List of Enquiries Received from Various Sources including the Canadian Trade Mission, London; the Canadian Trade Commission, Ottawa; the Department of Trade and Commerce, Ottawa; and the Commercial Intelligence Department, C.M.A., Toronto.

DOMESTIC

338. British Columbia.—A reliable firm in New Westminster wishes to get in touch with manufacturers desirous of forming a connection in British Columbia for road machinery, farm implements, portable saw mills, industrial machinery and contractors' supplies. The firm is owned and operated by ex-officers, has good warehousing accommodation with trackage and wharf at New Westminster, offices at Vancouver and Vernon and agents in other parts of the province.

339. Buying supplies in Canada.—A newly-established Canadian industry wishes to buy the following material in Canada: Warp spinning bobbins; spinning and twister tape; roving skewers; steel clad fiber lined roving and spooler trucks.

FOREIGN

340. Wood Split Pulleys.—A London company desires the addresses of Canadian manufacturers of wood split pulleys for power transmission.

341. Turned Goods, Hammocks, Polish, etc.—A Canadian who has established himself as a manufacturer's agent has enquiries for the following goods and would be glad to hear from Canadian manufacturers able to fill orders: Dowels, rolling pins, bread boards, pastry boards, skewers and turned goods of all kinds; also hammocks, bird cages, and brass polishing pastes in 1 oz. tins.

342. Wire Nail Rods.—A London company is open to purchase wire nail rods, and invites offers from Canadian manufacturers.

343. Animal Oils and Fats.—A Liverpool firm wishes to secure a buying agency for animal oils and fats, for margarine and soapmaking purposes.

344. Fish Oils.—A Liverpool firm wishes to secure a buying agency for the above.

345. Hemlock Tanning Extract.—A Liverpool firm are interested in the importation of the above.

346. Condensed Milk.—A Sheffield firm asks to be placed in communication with exporters of condensed milk.

347. Bacon.—An important Liverpool firm desires to secure the agency of an unconnected shipper of the above.

348. Agricultural Implements and Tools.—A Belfast firm asks to be placed in touch with exporters of the above.

349. Crude Asbestos.—A Glasgow firm asks to be placed in touch with exporters of the above.

350. Flake Graphite.—A Glasgow firm asks as to the possibility of procuring the above from Canada.

351. Rubber Footwear.—A Glasgow firm are large buyers of the above.

352. Asbestos Building Materials.—A Glasgow firm asks to be placed in touch with exporters of the above.

353. Machine-Made Brushes.—A Belfast firm are buyers of all kinds of the above in sizes from 8 inches long and down.

354. Brush Stock.—A Belfast firm are buyers of all grades of wood—cut to size for brush stock.

355. Skim Milk Powder.—A Hull firm is interested in importing the above.

356. Marine Motor Specialties.—A Liverpool firm asks to be placed in touch with exporters of the above desiring a representative.

357. Asbestos Building Material.—A Sheffield firm are interested in the importation of the above.

358. Navvy Barrows.—A Sheffield firm of builders' merchants would like to receive offers of the above.

359. Phosphates and Pyrophosphates for Confectionery Purposes. A Liverpool firm ask to be placed in touch with exporters of the above.

360. Butter.—A Hull firm ask to be placed in touch with exporters of the above with a view to business after control is removed.

361. Flake and Medium Ground Oatmeal.—A Belfast firm asks to be placed in touch with manufacturers of the above.

362. Bolts, Nuts and Screws.—A Glasgow firm asks to be placed in touch with exporters of the above.

363. Household Woodenware.—A Glasgow firm ask to be placed in touch with exporters of the above.

364. Enamelware.—A Glasgow firm ask to be placed in touch with exporters of the above.

Exporters : Ship Canadian National "All the Way"

Canadian Government Merchant Marine Limited

SAILINGS, 1920

Liverpool Service. (Subject to change without notice.)

From Halifax, N.S.	On or about
Canadian Miller	Apr. 12th
From St. John, N.B.	
Canadian Voyageur	Apr. 24th
From Montreal, Que.	
Canadian Seigneur	May 12th
Canadian Seigneur	July 7th
Canadian Ranger	May 23rd
Canadian Ranger	July 18th
Canadian Miller	June 12th
Canadian Miller	Aug. 7th
Canadian Victor	June 25th
Canadian Victor	Aug. 20th
From Sydney, N.S. (via Charlottetown and Halifax).	
Canadian Rancher	May 20th
Canadian Rancher	July 25th
Canadian Raider	June 20th
Canadian Raider	Aug. 25th

London Service.

From St. John, N.B.	
Canadian Navigator	Apr. 24th
From Montreal, Que.	
Canadian Settler	May 14th
Canadian Trapper	May 21st
Canadian Hunter	June 4th
Canadian Fisher	June 22nd

Glasgow Service.

From Montreal, Que.	
Canadian Aviator	(as soon as available)
Canadian Forester	July 10th

Brazil and Buenos Aires Service.

(Calling at Pernambuco, Rio de Janeiro, Santos, Brazil.)

From Montreal, Que.	
Canadian Planter	May 15th
Canadian Pioneer	June 15th
Canadian Spinner	July 15th
Canadian Mariner	Aug. 15th

Havana, Cuba, Service.

From Halifax, N.S.	
Canadian Sailor	April 3rd
Canadian Trader	April 24th
Canadian Sailor	May 7th
From Montreal, Que.	
Canadian Farmer	May 15th

From St. John, N.B.	On or about
McKee	April 10th
Sheba	April 17th
Canadian Sower	April 25th
Canadian Adventurer	May 4th
Canadian Signaller	May 15th
Canadian Sower	May 25th
Canadian Warrior	June 1st
Canadian Adventurer	June 8th
Canadian Signaller	June 15th
Canadian Sower	June 24th
Canadian Warrior	July 4th

Kingston, Jamaica, Service.

From St. John, N.B.	
Canadian Warrior	April 23rd
From Montreal, Que.	
Canadian Beaver	May 14th
Canadian Beaver	July 2nd
Canadian Gunner	June 1st
Canadian Gunner	July 20th
Canadian Farmer	June 16th
Canadian Farmer	Aug. 2nd

Barbados, Trinidad and Demerara Service.

From Halifax, N.S.	
Canadian Gunner	April 10th
From Montreal, Que.	
Canadian Volunteer	May 14th
Canadian Volunteer	July 9th
Canadian Trooper	May 28th
Canadian Trooper	July 23rd
Canadian Voyageur	June 12th
Canadian Voyageur	Aug. 6th
Canadian Navigator	June 24th
Canadian Navigator	Aug. 20th

St. John's, Newfoundland.

From Charlottetown, P.E.I.	
Canadian Sealer	May 8th
Canadian Sealer	May 22nd
From Montreal, Que.	
Canadian Rancher	May 8th
Canadian Miner	May 25th
*Canadian Sealer	June 10th
*Canadian Miner	June 15th
*Canadian Sealer	July 4th

*Via Charlottetown, if cargo offers.

(Thence fortnightly.)

Australian and New Zealand Service.

From Vancouver, B.C.	
Canadian Inventor	April 20th
Canadian Prospector	May 20th

These vessels of the Canadian Government Merchant Marine, Limited, are being operated under the direction of Canadian National Railways. The two combined—rails and ships—constitute Canada's great adventure in public ownership. If shippers in Canada support their own box cars and vessels, as they deserve to be supported, the adventure will certainly be crowned with success.

GET THE "NATIONAL" HABIT

Any Canadian railway agent can furnish information about rates and space, or
D. O. WOOD, Traffic Manager, Export and Import Dept., Canadian National Railways, Toronto, Ontario.

Canadian National Railways

365. Wire Nails, Bolts and Nuts.—A Glasgow firm are interested in importing the above.

366. Machine and Engineer's Small Tools.—A Glasgow firm are interested in the above.

367. Wire Nails.—A Glasgow firm asks to be placed in touch with exporters of the above.

368. Clothes Pegs.—A London Company would be glad to hear from Canadian manufacturers of clothes pegs and spring clips who can fill orders.

369. Timber.—A firm established in London for 25 years would like to secure the London or English agency for timber or general building material. They use a great deal of these commodities, and feel confident they could find a ready market for the same.

370. Greece.—A Greek shipping owner of good standing is anxious to assist in the development of trade between Canada and the Balkans. He has resided in Roumania for 26 years and knows the markets of the country. He is desirous of getting in touch with Canadian concerns wishing to extend their trade to the Balkans.

Babbitts
Solders
Pig Metals
Type Metals
Lead Pipe
Lead Traps
Lead Sheet
Lead Cames



Largest Makers of
WHITE METALS
in the World

HOYT METAL COMPANY
Montreal TORONTO Winnipeg

371. Box Shooks.—A Liverpool importer wishes to secure quotations on box shooks for export direct from Canada to Greece. The quantity required is for 500,000 cases. Shooks must be Whitewood, planed on one side and roughed off on the other, with specifications as follows: T. & B. 19½-inch x 101-8-inch x ¾-inch sides. 19½ x 8-inch x 7-16-inch, ends 9¼-inch x 8-inc x 9-16.

372. Maple Blocks and Squares.—A Liverpool agent who claims to be in touch with a large demand for the above, desires to secure an agency from a firm of exporters.

373. Plywood.—A Liverpool firm asks to be placed in touch with exporters of the above.

374. Wire.—A London Company desires the addresses of important Canadian manufacturers of galvanized wire, plain wire and barbed wire.

375. Automobile Accessories and Engineering Sundries.—A London Company maintaining branches all over the world, would be glad to negotiate for the sole agency of Canadian manufacturers in a position to regularly export automobile accessories and engineering sundries.

376. Lawn Mowers.—A London Company is desirous of hearing from Canadian manufacturers of lawn mowers in a position to fill orders for Siam.

377. Hardware, Domestic Appliances, etc.—A company in New Zealand would be glad to receive catalogues and price lists, as well as details of packing and shipping, from Canadian manufacturers of the following: Asbestos building sheets, concrete mixers, aluminium utensils, enamelware utensils, leather belting, veneer, plain galvanised iron, corrugated galvanised iron, steel bars, sheet steel, wire nails, wood screws, wringers, lawn mowers, washing machines, hickory axe and tool handles, churns, hand separators, building hardware, mechanics' tools, household ironmongery.

378. Acetate of Lime.—A Paisley firm are large buyers of the above, and ask to be placed in touch with exporters.

379. Algiers.—A firm in Algiers wishes to secure the monopoly and exclusive agency for any Canadian manufacturers of the following articles: Paints, oil and varnish, brushes, shoes, furs, hair brushes and combs, string, wire, nails, etc. Their references are good.

380. Formaldehyde.—A Leeds firm is in a position to import considerable quantities of formaldehyde 40 per cent.

381. Ferro Alloys.—A Sheffield firm asks to be placed in touch with manufacturers of ferro-chrome, ferro-silicon, ferro-molybdenum.

382. Lactic Acid.—A Leeds firm ask to be placed in touch with actual makers of lactic acid.

383. Quills.—A London firm who are large buyers of raw quills (goose and duck) for the manufacture of pens, toothpicks, etc., are desirous of purchasing supplies from Canada.

384. Chocolates and Canned Goods.—A firm of wholesale grocers and provision merchants in Brighton wish to purchase direct Canadian chocolates and other confectionery; also canned fruits, vegetables, meats, salmon and condensed milk, of which they buy large quantities.

385. Broom Handles and Chair Seats.—A London Company are open to purchase broom handles, three-ply veneer chair seats, and three-ply veneer as used in tramcars, and would be glad to receive offers from Canadian manufacturers.

386. Canned Salmon.—A London firm wishes to purchase canned salmon for direct shipment to France and invites offers from Canadian packers.

387. New Zealand.—An agency in New Zealand desires to get in touch with Canadian manufacturers of men's hats, ties, braces, etc. They wish to represent Canadian firms in the above lines for the Dominion of New Zealand.

388. Egypt, Palestine, Syria and Cilicia.—A gentleman with good references would like to communicate with manufacturers who are in need of an agent for the above countries. He is well acquainted with the countries and roads, railway and shipping services, official departments and traders. For the last three years he has been engaged in transportation—in Egypt since 1917, in the other countries since their occupation.

ARMSTRONG WHITWORTH OF CANADA
LIMITED

Montreal,
Toronto,
Hamilton,
Winnipeg



Manufacturers in Canada of

Locomotive and Car Wheel Tires

HIGH SPEED and CARBON TOOL STEEL

Works: LONGUEUIL, QUE.

Minister:
Hon. W. R. Rollo

Department of Labour
ONTARIO GOVERNMENT

Deputy Minister:
W. A. Riddell, Ph.D

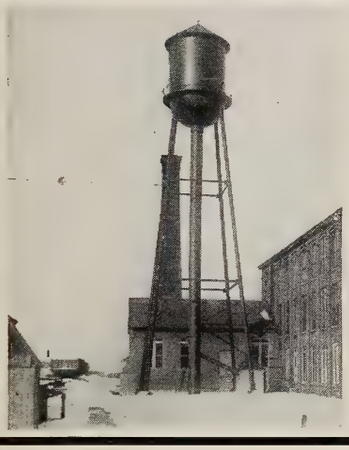
INVESTIGATION AND RESEARCH

The Department is the provincial centre for investigation and research in matters connected with labour. Pamphlets on vocational opportunities for boys and girls in the industries of the Province are being prepared. A report upon the Mothers' Pensions investigation undertaken by the Department is now in the hands of the printer. Legislation affecting industry is continually under consideration.

ADMINISTRATION OF

1. The Stationary and Hoisting Engineers' Act.
2. The Factory, Shop and Office Building Act.
3. The Steam Boiler Act.
4. The Building Trades Protection Act.
5. The Employment Agencies Act.
6. The Bureau of Labour Act.

Ontario Government Employment Bureaus
(Employment Service of Canada)



ELEVATED STEEL TANKS

Penstocks, Standpipes, Miscellaneous Tank and Plate Work, Highway Bridges, Mill and Office Buildings

Inquiries will be appreciated Quotations submitted promptly

Canadian Des Moines Steel Company Ltd.

Office and Plant: 510 INSHES AVENUE, CHATHAM, ONT.

TAR PRODUCTS

"DOMTAR BRANDS"

Black Varnish
Creosote Oils
Wood Preservative Oils
Hard Coal-Tar Pitch
Naphthalene
Disinfectants
Crude Carbolic Acids
Road Tars (Domtarbond)
Phenols and Cresols
Paint Naphthas
Crude Naphthas
Shingle Stain Oils

Dominion Tar and Chemical Co. LIMITED

TAR DISTILLERIES

SAULT STE. MARIE, Ont. SYDNEY, N.S.

Address all communications to Sales Office
400 McKinnon Bldg. - Toronto, Ont.

Buyers' Guide to Canadian Manufactures

List of Articles which will Enable the Purchaser to Know the Manufacturers of Made-in-Canada Goods. Rates for insertion in this department, $4.00 per heading per year (12 insertions).

ABRASIVES
*Canadian Hart Wheels, Limited, Hamilton, Ont.
*Dominion Abrasive Wheel Co., New Toronto, Ont.

ACCOUNT BOOKS
*The Brown Bros., Ltd., Toronto.

ACCUMULATORS, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.

ACETYLENE GAS
*The Prest-O-Lite Company of Canada, Ltd., Toronto, Ont.

ACETYLENE GAS BURNERS
Economic Acetylene Burner Co., Toronto, Ont.
*The Prest-O-Lite Company of Canada, Ltd., Toronto. Ont.

ACID PROOF COATINGS
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

ACIDS
*The Grasselli Chemical Co., Ltd., Toronto.
*The Nichols Chemical Co., Ltd., Montreal, Que.

ADVERTISING NOVELTIES
Lawson & Jones, Ltd., London, Ont.

ADVERTISING SIGNS
Cross Press & Sign Co., Ltd., Woodstock, Ont.

AERATED BEVERAGES
Charles Gurd & Co., Ltd., Montreal, Que.
J. J. McLaughlin, Ltd., Toronto.

AIR COMPRESSORS
*Canadian Ingersoll-Rand Co., Montreal, Que.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

AIR LIFT PUMPS
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.

ALCOHOL
*Canadian Industrial Alcohol Company, Ltd., Montreal, Que.

ALUMINUM
*Northern Aluminum Co., Ltd., 1805 Traders Bank, Toronto,

ALUMINUM CASTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.

AMMONIA
Canadian Ammonia Co., Ltd., Toronto, Ont.

ANCHORS, all steel
Beauchemin & Fils, Ltd., Sorel, Que.

ANGLE BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, Que.
*The Steel Company of Canada, Ltd., Hamilton, Ont.

ARSENIC
*Deloro Smelting & Refining Co., Limited, Deloro, Ont.

ARTIFICIAL LIMBS
Chesley Artificial Limb Co., Ltd., Hantsport, N.S.

ASBESTOS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS SHEATHING
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS SHEET AND PISTON PACKINGS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS STEAM PIPE AND BOILER COVERINGS
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

ASBESTOS TEXTILES
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.

AUTOMOBILE ACCESSORIES
*McKinnon Industries Limited, St, Catharines, Ont.
*Northern Electric Co., Limited, Montreal, Que.
*Tallman Brass & Metal Co., Hamilton, Ont.

AUTOMOBILE PARTS
*Dominion Forge & Stamping Co., Walkerville, Ont.

AWNING CORD (cotton)
Hamilton Cotton Co., Hamilton, Ont.

AXLES
Canada Forge Co., Ltd., Welland, Ont.
Guelph Spring & Axle Co., Ltd., Guelph, Ont.

AXLES, carriage and automobile
Guelph Spring & Axle Co., Ltd., Guelph, Ont.

BABBITT METAL
Alonzo W. Spooner, Ltd., Port Hope, Ont.
*Hoyt Metal Co., Toronto, Ont.
*The Canada Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BACON
F. W. Fearman Co., Ltd., Hamilton, Ont.

BAGS, Cotton
The Canadian Bag Co., Limited, Montreal, Que.

BAGS, jute
The Canadian Bag Co., Limited, Montreal, Que.

BAGS, travelling
J. Eveleigh & Co., Ltd., Montreal.
Lamontague, Ltd., Montreal, Que.
*The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.

BAND RESAWS
*Canada Machinery Corporation, Limited, Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

BAND SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

BANK FITTINGS
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.

BANK AND OFFICE RAILINGS AND CAGES
*Canada Wire and Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*The Geo. B. Meadows, Toronto, Wire, Iron & Brass Works Co., Ltd., Toronto, Ont.

BANK SIGNS AND FITTINGS
*Tallman Brass & Metal Co., Hamilton, Ont.

BARRELS, steel, and containers
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

BARS, iron
London Rolling Mill Co., Ltd., London, Ont.

BARS, steel
London Rolling Mill Co., Ltd., London, Ont.

BASEBALL GOODS
A. J. Reach Co., Brantford, Ont.

BATHS, enamelled
Amherst Foundry Co., Ltd., Amherst, N.S.

BATTERIES, dry
*The Canadian National Carbon Co., Ltd., Toronto, Ont.

BATTERIES, Flashlight
*The Canadian National Carbon Co., Ltd., Toronto, Ont.

BATTERIES, Storage
*The Canadian National Carbon Co., Ltd., Toronto, Ont.

BEARINGS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BEARINGS, bronze
*Tallman Brass & Metal Co., Hamilton, Ont.

BEARINGS, pillow block and upright
*Canadian Fairbanks-Morse Company, Ltd., Montreal, Que.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BEEF
F. W. Fearman Co., Ltd., Hamilton, Ont.

BELTING, chains
*Canadian Link-Belt Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

BELTING, elevator
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.

BELTING, leather
The Beardmore Belting Co., Ltd., Toronto, Ont.
*J. L. Goodhue & Co., Danville, Que.
*The D. K. McLaren Belting Co., Ltd., Montreal, Que.
*The J. C. McLaren Belting Co., Ltd., Montreal, Que.

BELTING, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha and Rubber Ltd., Toronto, Ont.

BELTING, stitched cotton duck
*Dominion Belting Co., Ltd., Hamilton, Ont.

BENT GOODS
The Crown Lumber Co., Woodstock, Ont.

BISCUITS
The Montreal Biscuit Co., Montreal, Que.

BLACK SHEETS
*A. C. Leslie & Co., Montreal, Que.

BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
J. Walshaw & Son, Ltd., Bolton, Ont,

BLANKETS, horse
Slingsby Mfg. Co., Ltd., Brantford, Ont.
J. Walshaw & Son, Ltd., Bolton, Ont.

BLASTING ACCESSORIES
Canadian Explosives, Ltd., Montreal, Que.

BLEACHING POWDER
*Canadian Salt Co., Ltd., Windsor, Ont.

BLOWERS
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

BOARDS, paper, fibre, press
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOATS OF ALL KINDS
Peterboro Canoe Co., Ltd., Peterboro, Ont.

BOBBINS
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.

BOILER COMPOUND
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOILER COMPOUND AND OILS
Electric Boiler Compound Co., Ltd., Guelph, Ont.

BOILER GRAPHITE
Black Donald Graphite Company, Limited, Calabogie, Ont.

BOILER LININGS AND COVERINGS
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

BOILERS
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*Goldie & McCulloch Co., Limited, Galt, Ont.
*E. Leonard & Sons, Ltd., London, Ont.
J. & R. Weir, Montreal, Que.
Taylor-Forbes Co,, Ltd., Guelph,
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BOILERS, hot water or steam
Warden King, Ltd., Montreal.

BOILERS, steam
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BOILERS, steam and brass work
*The Waterous Engine Works Co., Ltd,, Brantford, Ont.

BOILER STANDS
Anthes Foundry Ltd., Toronto.

BOLTS AND NUTS
*The Canadian Tube & Iron Co., Ltd., Montreal, Que.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Company of Canada, Ltd., Hamilton, Ont.

BOOKBINDERS
R. G. McLean, Toronto.
*The Brown Bros., Ltd., Toronto.

BOOKCASES
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

BOOKCASES, sectional (Gunn)
The George McLagan Furniture Co., Ltd., Stratford, Ont.

BOOKLETS
R. G. McLean, Toronto.

BOOKS, blank
*The Brown Bros., Ltd., Toronto.

BOOTS AND SHOES
J. Leckie Co., Ltd.
The John Ritchie Co., Ltd., Quebec, Que.

BOXES, cellular and fibre board
*Hinde & Dauch Paper Co. of Canada, Limited, Toronto.
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls.

BOXES, rattle and soap
The Arlington Co. of Canada, Ltd., Toronto, Ont,

BOXES, steel shop
*Steel Trough and Machine Co., Ltd., Tweed, Ont.

BOXES AND SHOOKS, wooden
The C. Beck Mfg. Co., Ltd., Penatanguishene, Ont.

BOXES, wooden
G. & J, Esplen, Montreal, Que.
Barchard & Co., Ltd., Toronto.

BRAKE SHOES
*Canadian Hart Wheels, Limited, Hamilton, Ont.

BRANDS, burning
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

BRASS BOLTS AND NUTS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS AND BRONZE WIRE
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

BRASS, BRONZE and ALUMINUM LETTERS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS ENGRAVERS
Pritchard, Andrews Co, of Ottawa, Ltd., Ottawa, Ont.

BRASS FOUNDERS AND FINISHERS
*The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS GOODS
*The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
*The Kerr Engine Co., Limited, Walkerville, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS PLATES
*Tallman Brass & Metal Co., Hamilton, Ont.

*For Display Advertisement see Index, Page 53

BRASS RODS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS RODS, SHEETS AND PLATES
*Brown's Copper and Brass Rolling Mills, Ltd,, New Toronto.

BRASS SHEETS AND PLATES
*Dominion Copper Products Company, Ltd., Montreal, Que.

BRASS SIGNS AND MEMORIALS
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS TUBING, seamless
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Company, Ltd., Montreal, Que.

BRASS WIRE
Canadian Seamless Wire Co., Ltd., Toronto.
*Tallman Brass & Metal Co., Hamilton, Ont.

BRASS WORK, church
Pritchard, Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

BRASS WORK, special
*Tallman Brass & Metal Co., Hamilton, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

BRICK
*Interprovincial Pressed Brick Co. of Canada, Limited, Toronto.
National Brick Co. of Laprairie, Laprairie, Que.
Port Credit Brick Co., Port Credit, Ont.
The Citadel Brick & Paving Block Co., Ltd., Quebec, Que.

BRICK, enamel
National Brick Co. of Laprairie, Laprairie, Que.

BRICK, pressed
National Brick Co. of Laprairie, Laprairie, Que.
The Citadel Brick & Paving Block Co., Ltd. Quebec, Que.

BRICK, rubbing
*Canadian Hart Wheels, Limited, Hamilton, Ont.

BRICK, sewer.
National Brick Co. of Laprairie, Laprairie, Que.

BRIDGES, Railway and Highway
*Canadian Des Moines Steel Co., Limited, Chatham.
*Hamilton Bridge Works Co., Ltd., Walkerville, Ont.
*The Canadian Bridge Co., Ltd., Hamilton, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*Dominion Bridge Co., Montreal.
*Mackinnon Steel Co., Ltd., Sherbrooke, Que.

BROOMS
Simms, T. S., & Co., Limited, St. John, N.B.
Stevens-Hepner Co., Limited, Port Elgin, Ont.

BRONZE SHEETS, RODS, PLATES
*Dominion Copper Products Company, Ltd., Montreal.

BRONZE SHEETS, RODS, PLATES
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.

BRONZE TUBING, seamless
*Dominion Copper Products Company, Limited, Montreal,

BRUSHES
Simms, T. S., & Co., Limited, St. John, N.B.
Stevens-Hepner Co., Ltd., Port Elgin, Ont.

BRUSHES, carbon
*Canadian National Carbon Co., Ltd., Toronto.

BUCKET TANKS
*MacKinnon Steel Co., Ltd,, Sherbrooke, Que.
*The Bennett & Wright Co., Ltd., Toronto, Ont.

BUCKLES, shoe and coat
Parmenter & Bulloch Co., Limited, Gananoque, Ont.

BUILDING FELT AND PAPER
*Beveridge Paper Co., Ltd., Montreal.
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
*The Barrett Co., Ltd., Toronto and Montreal.

BUNGS, wooden for barrels
Wm. H. White, Ville St. Pierre, Montreal, Que.

BURLAPS
The Canadian Bag Co., Limited, Montreal, Que.

BURLAPS, decorative
Dominion Oil Cloth Co., Limited, Montreal, Que.

CABLES, electric light, power, telephone and telegraph
*Northern Electric Company, Limited, Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd,, Hamilton, Ont.

CABLES, transmission and telephones
*Northern Electric Company, Limited, Montreal, Que.

CABLES, transmission and cable
*Northern Electric Co., Ltd., Montreal, Que.

CABLES, wire
*The Dominion Wire Rope Co., Ltd., Montreal, Que.
*The B. Greening Wire Co., Ltd., Hamilton, Ont.

CALENDARS, ADVERTISING NOVELTIES, etc.
Lawson & Jones, Ltd., London.

CAMERAS
Canadian Kodak Co., Ltd., Toronto, Ont.

CAMPERS' OUTFITTERS
Slingsby Mfg. Co., Ltd., Brantford, Ont.

CANADA SILVER
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto.

CANOES
Peterboro Canoe Co., Ltd., Peterboro, Ont.

CANS, baking powder, etc.
American Can Co., Montreal (Que.) and Hamilton (Ont.).
A. R. Whittall Can. Co., Ltd., Montreal, Que.
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CANS, fruit
American Can Co., Montreal (Que.) and Hamilton (Ont.).
A. R. Whittall Can. Co., Ltd., Montreal, Que.
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CANS, iron, lead and putty
A. R. Whittall Can. Co., Ltd., Montreal, Que.

CANS, tin
A. R. Whittall Can Co., Ltd., Montreal, Que.
American Can Co., Montreal (Que.) and Hamilton (Ont.).
*MacDonald Mfg. Co., Ltd., Toronto, Ont.

CAPS, cloth
John W. Peck & Co., Ltd., Montreal. Que.

CARBIDE
*Canada Carbide Co., Ltd., Montreal. Que.

CARBONS, electric
*Canadian National Carbon Co., Ltd.. Toronto, Ont.

CARBONIC ACID GAS
*Canadian Carbonate Co.. Montreal.

CARD RECORD SYSTEMS
Lowe-Martin Co., Ltd., Ottawa, Ont.
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

CARPETS AND RUGS
Toronto Carpet Mfg. Co., Limited, Toronto.

CARPET FELTS, plain and corrugated
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

CARRIERS
*Richards-Wilcox Canadian Co., Ltd.. London, Ont.

CARRIERS, box and barrel
*Canadian Mathews Gravity Carrier.

CARRIERS, brick
*Canadian Mathews Gravity Carrier Co., Limited, Toronto.
*Richards-Wilcox Canadian Co., Ltd., London, Ont.

CARS
*National Steel Car Co., Ltd., Hamilton. Ont.

CARS, industrial
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.

CARTONS, lithographed
Harris Lithographing Co., Ltd., Toronto, Ont.

CASTINGS, Alloy
*The Electric Steel & Metals Co., Ltd., Welland, Ont.

CASTINGS, aluminum, brass and bronze
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.

CASTINGS, grey iron
*Canadian Rumely Co., Ltd., Toronto. Ont.
*Dodge Mfg. Co., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*Wm. Kennedy & Sons, Ltd., Owen Sound, Ont.

CASTINGS, malleable iron
*Galt Malleable Iron Co., Ltd., Galt, Ont.

CASTINGS, steel
Beauchemin & Fils, Ltd., Sorel, Que.
*Canadian Steel Founderies, Ltd., Montreal, Que.
*Dominion Foundries and Steel Co., Ltd., Hamilton, Ont.
*Electric Steel & Metals Co., Ltd., Welland, Ont.
*Wm. Kennedy & Sons, Ltd., Owen Sound, Ont.

CATALOGUE MAKERS
Grip, Ltd., Toronto, Ont.

CATALOGUE COVERS, by new lithographing process
Harris Lithographing Co., Ltd., Toronto, Ont.

CAUSTIC SODA
*Canadian Salt Co., Ltd., Windsor.

CELLBOARD
*Adams Cellboard Co., Toronto.

CEMENTS, High Temp.; plastic, liquid
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

CENTRIFUGAL PUMPS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

CHAINS, for elevators, conveyors and drives
*Canadian Link-Belt Co., Toronto.

CHAIRS
*Office Specialty Mfg. Co., Ltd. Newmarket, Ont.

CHAIRS, assembly hall
Stratford Mfg. Co., Ltd., Stratford, Ont.

CHAIRS, folding
Stratford Mfg. Co., Ltd., Stratford, Ont.

CHAIRS, rattan and upholstered
Imperial Rattan Co., Ltd., Strat ford. Ont.

CHEMICALS
Canadian Laboratory Supplies, Ltd., Toronto, Ont.
*The Grasselli Chemical Co., Ltd.. Toronto, Ont.
*The Nichols Chemical Co., Ltd.. Montreal, Que.

CHEMISTS, industrial
*Milton Hersey Co., Montreal.

CHICLETS AND CHEWING GUM
Canadian Chewing Gum Co., Ltd.. Toronto, Ont.

CIRCULAR CUTTERS, solid steel
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.

CIRCULAR SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

CLAM SHELL BUCKETS
*Canadian Mead Morrison Co., Ltd., Montreal, Que.

CLAY, Ground.
*Interprovincial Brick Co. of Canada, Limited, Toronto.

CLOCKS, time
*International Business Machines Co., Ltd., Toronto.

CLOCKS, watchmen's
*The Bennett & Wright Co., Ltd., Toronto. Ont.

CLOSET SEATS
*Goderich Organ Co., Goderich,Ont.

CLOTHING
John W. Peck & Co., Ltd., Montreal, Que.

CLOTHING, leather and sheepskin lined coats
*A. R. Clarke & Co., Ltd., Toronto

CLOTHING, Mackinaw
The Carss Mackinaw Clothing Co., Ltd., Orillia, Ont.

CLOTHES LINES, cotton
Hamilton Cotton Co., Hamilton, Ont.

CLUTCHES
*Dodge Mfg. Co., Ltd., Toronto.

CLUTCHES, conveyors
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

COAL
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
Standard Fuel Co., Toronto, Ont.

COBALT OXIDE
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
The Coniagas Reduction Co., Ltd., St. Catharines, Ont.

COBALT METAL
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.

COFFEE
S. H. Ewing & Sons, Montreal.

COLD DRAWN SHAPES, flats, squares and hexagons
*The Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*Union Drawn Steel Co.. Ltd. Hamilton, Ont.

COLD STORAGE DOORS
John Hillock & Co., Ltd., Toronto.

COLLAR BUTTONS
The Arlington Co. of Canada, Ltd., Toronto, Ont.

COLLARS, coated linen
Parsons & Parsons Canadian Co., Hamilton, Ont.

COLORS
*A. Ramsay & Son Co., Montreal.

COMBS, fine dressing and name
The Arlington Co. of Canada, Ltd., Toronto, Ont.

COMMERCIAL STATIONERY
*Brown Bros., Ltd., Toronto, Ont.

CONCRETE COATINGS, PAINTS, Etc.
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.

CONCRETE HARDENER AND WATERPROOFER
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
Sturgeons Limited, Toronto.

CONDUITS FOR INTERIOR WIRING
*Conduits Co., Ltd.. Toronto, Ont.

CONDENSERS, Barometic
Canadian Ingersoll-Rand Co., Ltd.. Sherbrooke, Que.

CONFECTIONERY
Ganong Bros., Ltd., St. Stephens, N.B.
Moirs, Ltd., Halifax, N.S.
The Montreal Biscuit Co., Montreal, Que.

CONTAINER BOARD—strong container
*Bathurst Lumber Co., Ltd.. Bathurst, N.B.

CONTRACTOR'S PLANT
*Canadian Mead Morrison Co., Ltd., Montreal, Que.

CONVEYORS
*Canadian Link-Belt Co., Toronto.
*Canadian Mathews Gravity Carrier Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.

COPPER
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Consolidated Mining & Smelting Co. of Canada. Ltd.. Montreal.

COPPER, SHEETS, PLATES, BARS, RODS
*Brown's Copper and Brass Rolling Mills, Ltd., New Toronto, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
*Tallman Brass & Metal Co.. Hamilton, Ont.
*Dominion Copper Products Co., Ltd., Montreal, Que.

COPPERSMITHS
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.

COPPER TUBING, seamless
*Dominion Copper Products Co., Ltd., Montreal, Que.
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Booth-Coulter Copper & Brass Co., Ltd., Toronto. Ont.

* For Display Advertisement see Index, Page 53

COPPER WIRE
Canadian Seamless Wire Co., Ltd., Toronto, Ont.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.

CORKS
S. H. Ewing & Sons, Montreal, Que.

CORK CARPET
Dominion Oil Cloth Co., Ltd., Montreal, Que.

CORRUGATED PAPER BOXES
*Adams Cellboard Co., Toronto.
Corrugated Paper Box Co., Ltd., Toronto, Ont.
*Hinde & Dauch Paper Co. of Canada, Limited, Toronto.
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.

CORSETS
Dominion Corset Co., Quebec, Que.

COTTONS
*Montreal Cottons, Ltd., Valleyfield, P.Q.

COTTONADES
Hamilton Cotton Co., Hamilton, Ont.

COUPLERS
*Canadian Steel Foundries, Ltd., Welland, Ont.

COUPLINGS
*Dodge Mfg. Co., Ltd., Toronto.

CRANES
*Northern Crane Works, Walkerville, Ont.
*The Herbert Morris Crane and Hoist Co., Ltd., Niagara Falls, Ont.

CRANKSHAFTS
Canada Forge Co., Ltd., Welland, Ont.

CREAM CHEESE, Ingersoll
The Ingersoll Packing Co., Ltd., Ingersoll, Ont.

CREAM SEPARATORS AND MILK CLARIFIERS
De Laval Dairy Supply Co., Peterboro, Ont.

CREAMERY AND CHEESE FACTORY MACHINERY AND SUPPLIES
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.

CREOSOTED MATERIALS
*The Barrett Co., Ltd., Toronto and Montreal.

CRUSHERS, Rock and Ore
Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.

CUPOLAS
*Northern Crane Works, Ltd., Walkerville, Ont.

CUPS, presentation
Standard Silver Co., Toronto, Ont.

CURTAINS, chenille
Hamilton Cotton Co., Hamilton, Ont.

CUTLERY
Standard Silver Co., Toronto, Ont.

CUTTERS, machine
*Pratt & Whitney Co., Dundas, Ont.

DECALCOMANIA TRANSFERS
Canada Decalcomania Co., Toronto, Ont.

DENIMS
Hamilton Cotton Co., Hamilton, Ont.

DERAILS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

DESIGNERS AND PRINTERS OF BOOKLETS, Etc.
Grip, Ltd., Toronto, Ont.

DESKS
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

DESICCATED VEGETABLES
Grahams, Ltd., Belleville, Ont.

DINING ROOM SUITES
The George McLagan Furniture Co., Ltd., Stratford, Ont.

DIES
*Butterfield & Co., Rock Island, P.Q.
*Pratt & Whitney Co., Dundas, Ont.

DISINFECTING APPARATUS
Spramotor Co., London, Ont.

DOOR HANGERS
*Richards Wilcox Canadian Co., Ltd., London, Ont.

DREDGES
*Canadian Mead Morrison Co., Ltd., Montreal, Que.

DRESSING, belt
Sadler & Haworth, Montreal, Que.

DRILL PRESSES
*Canada Machinery Corporation, Ltd., Galt, Ont.

DRILL SHARPENERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

DRILLS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*Pratt & Whitney Co., Dundas, Ont.

DRILLS, Square or Hexagon
Globe Engineering Co., Limited. Hamilton, Ont.

DRIFT BOLTS OR SPIKES
London Rolling Mill Co., Ltd., London, Ont.

DROP FORGINGS.
*Canadian Billings & Spencer, Ltd., Welland, Ont.

DROP HAMMERS
*Canada Machinery Corporation, Ltd., Galt, Ont.

DRUMS, steel, and containers
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

DRY COLORS
*The Imperial Varnish & Color Co., Ltd., Toronto.
R. C. Jamieson & Co., Ltd., Montreal, Que.
Standard Paint & Varnish Co., Ltd., Windsor, Ont.

DUMB WAITERS
Turnbull Elevator Mfg. Co., Toronto, Ont.

DURABLE WIRE ROPE
*The Dominion Wire Rope Co., Ltd., Montreal, Que.

DYNAMITE
Canadian Explosives, Ltd., Montreal, Que.

DYNAMOS
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.

DYNAMOS, plating
*Jones & Moore Electric Co., Ltd., Toronto, Ont.

EIDERDOWN
Galt Knitting Co., Ltd., Galt, Ont.

ELECTRIC APPLIANCES
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.

ELECTRICAL COMPOUNDS
Standard Paint Co. of Canada, Ltd., Montreal, Que.

ELECTRIC PLATE WARE
Roden Bros., Ltd., Toronto, Ont.

ELECTRODES, carbon
*Canadian National Carbon Co., Ltd., Toronto, Ont.

ELECTROTYPING
Central Press Agency, Ltd., Toronto.

ELECTRICAL SUPPLIES
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
*Jones & Moore Electric Co., Ltd.,
*Northern Electric Co., Ltd., Montreal, Que.

ELECTRO-SILVER PLATED WARE
Standard Silver Co., Toronto, Ont.

ELEVATING MACHINERY
*Canadian Link-Belt Co., Toronto.
*Canadian Mathews Gravity Carrier Co., Toronto, Ont.

ELEVATORS
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
Turnbull Elevator Mfg. Co., Toronto, Ont.
*The Waterous Engine Works Co., Ltd,, Brantford, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.

ELEVATORS FOR ALL PURPOSES
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

ELEVATOR GATES AND DOORS
Turnbull Elevator Mfg. Co., Ltd., Toronto, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.

ELEVATOR GUARDS
*The Geo. B. Meadows, Toronto.
Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
*Canada Wire and Iron Goods Co., Hamilton, Ont.

EMERY GRINDERS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

EMERY WHEELS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

ENAMELS
R. C. Jamieson & Co., Ltd., Montreal, Que.
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.

ENAMEL MANUFACTURERS AND DECORATORS
Standard Paint & Varnish Co., Ltd., Windsor, Ont.

ENAMEL AND TIN WARE
*McClary Mfg. Co., London, Ont.

ENGINES
*E. Leonard & Sons, Limited, London, Ont.
*Goldie & McCulloch Co., Ltd., Galt, Ont.
J. & R. Weir, Montreal, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

ENGINES, gas and gasoline
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Hamilton Motor Works, Ltd., Hamilton, Ont.
*Massey-Harris Co., Ltd., Toronto.

ENGINES, gasoline, tractor, plowing and threshing
Sawyer-Massey Co., Ltd., Hamilton, Ont.

ENGINES, hoisting
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

ENGINES, marine, gasoline and kerosene
Bruce, Stewart & Co., Ltd., Charlottetown, P.E.I.

ENGINES, steam plowing and threshing
Sawyer-Massey Co., Ltd., Hamilton, Ont.

ELECTRICAL AND GAS FIXTURES
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
*Tallman, Brass & Metal Co., Hamilton, Ont.

ENGRAVERS, photo
Grip, Ltd., Toronto, Ont.

ENGRAVERS, half-tone
Grip, Ltd., Toronto.

ENGRAVERS AND PRINTERS steel plate
American Bank Note Co., Ottawa, Ont.

ENGRAVERS AND PRINTERS bank note
American Bank Note Co., Ottawa, Ont,

ENGRAVING
*J. L. Jones Engraving Co., Toronto, Ont.

ENGRAVING, copper and steel plate
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.

ENSILAGE AND STRAW CUTTERS
J. Fleury's Sons, Aurora, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.

EVAPORATED APPLES
Grahams, Ltd., Belleville, Ont.

ENVELOPES
*Barber-Ellis Co., Ltd., Toronto.
Canada Envelope Co., Montreal, Que.

EXCELSIOR PADS
Parmenter & Bulloch Co., Ltd., Gananoque, Ont.

EXPERTS IN PATENT CAUSES
Ridout & Maybee, Toronto, Ont.

EXPLOSIVES, high
Canadian Explosives, Ltd., Montreal, Que.

FACE PLATE JAWS
Ker & Goodwin, Brantford, Ont.

FACTORY SUPPLIES, cheese and creamery
De Laval Dairy Supply Co., Ltd., Montreal, Que.

FANS
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

FARM POWER & LIGHT PLANTS
*Northern Electric Company, Limited, Montreal, Que.

FENCING, wire
*C. H. Johnson & Sons, Ltd., Montreal, Que.

FELTS, pulp and paper makers
Ayers, Ltd., Lachute Mills, P.Q.
*Beveridge Paper Co., Ltd., Montreal, Que.

FENCES AND GATES
*Dennis Wire & Iron Works Co., London, Ont.
*Canada Wire & Iron Goods Co., Hamilton, Ont.

FIBRE PAILS
*The E. B. Eddy Co., Ltd., Hull, Que.

FIBRE, Vulcanized
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

FIBRE (vulcanized), sheets, rods, tubes, etc.
The Diamond State Fibre Co. of Canada, Ltd., Toronto.

FIBREBRICK, Plastic, jointless
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

FILES
Henry Disston & Sons, Ltd., Toronto, Ont.
*The Nicholson File Co., Port Hope.

FILING CABINETS
*Office Specialty Co., Newmarket, Ont.

FILING EQUIPMENT, wood & steel
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.

FILING SYSTEMS
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
Lowe-Martin Co., Ltd., Ottawa, Ont.

FIRE ALARMS
*Northern Electric Co., Ltd., Montreal, Que.

FIRE BRICK
Dominion Fire Brick & Clay Products, Ltd., Moose Jaw, Sask.

FIRE BRICK AND CLAY
Dominion Fire Brick & Clay Products, Ltd., Moose Jaw, Sask.

FIRE BRICK, PLASTIC
Beveridge Paper Co., Ltd., Montreal, Que.

FIRE DOOR HARDWARE
*Richard Wilcox Canadian Co., Ltd., London, Ont.

FIRE DOORS
*A. B. Ormsby Co., Ltd., Toronto.
*The Pedlar People, Ltd., Oshawa, Ont.

FIRE ENGINES
*Waterous Engine Works Co., Ltd., Brantford, Ont.

FIRE ESCAPES
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.

FIRE EXTINGUISHERS
*A. B. Ormsby Co., Ltd., Toronto.
*Booth-Coulter Copper & Brass Co., Ltd., Montreal, Que.
*The Bennett & Wright Co., Ltd., Toronto, Ont.

FIRE FIGHTING APPARATUS
*Waterous Engine Works Co., Ltd., Brantford, Ont.

FIRE HOSE
*Canadian Consolidated Rubber Co. of Canada, Ltd., Montreal, Que.
*Gutta Percha & Rubber, Ltd., Toronto, Ont.

FIRE PREVENTION MATERIAL
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*Eureka Mineral Wool & Asbestos Co., Toronto.
*The Bennett & Wright Co., Ltd., Toronto, Ont.

FIRE PROOF WINDOWS AND DOORS
*A. B. Ormsby Co., Ltd., Toronto.
*Pedlar People, Ltd., Oshawa, Ont.

FIRE PROTECTION SYSTEMS
*Canadian Des Moines Steel Co., Limited, Chatham.

FIRE SPRINKLER SYSTEMS
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
*Purdy Mansell Co., Toronto, Ont.

FIRE AND WATER DEPARTMENT
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
The Garth Co., Montreal, Que.

FISH, Atlantic Sea-Foods
Maritime Fish Corporation, Ltd., Montreal, Que.

*For Display Advertisement see Index, Page 53

FITTINGS FOR SOIL PIPE
Anthes Foundry, Ltd., Toronto.
FITTINGS, steam
Warden King Ltd., Montreal, Que.
FLOORING, hardwood
Seaman Kent Co., Ltd., Meaford, Ont.
FORGES
*Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
FORGINGS
Canada Forge Co., Ltd., Welland, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
FORGINGS, drop
*Canadian Billings & Spencer, Ltd., Welland, Ont.
*Dominion Forge & Stamping Co., Walkerville, Ont.
FOUNDRY EQUIPMENT
*Northern Crane Works, Ltd., Walkerville, Ont.
FOUNTAIN FRUITS AND JUICES
J. J. McLaughlin, Ltd., Toronto.
FRICTION CLUTCH PULLEYS
*Dodge Mfg. Co., Ltd., Toronto.
FROGS AND CROSSINGS, manganese
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
FUEL
Standard Fuel Co., Toronto, Ont.
FUR GARMENTS, men's and women's
Holt, Renfrew, Ltd., Quebec.
FUR GOODS
John W. Peck & Co., Ltd., Montreal, Que.
FURNACES
*McClary Mfg. Co., London, Ont.
FURNITURE, hall
The George McLagan Furniture Co., Ltd., Stratford, Ont.
FURNITURE, office
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.
FURNITURE, reed and rattan
Imperial Rattan Co., Ltd., Stratford, Ont.
FUSES
*Economy Fuse & Mfg. Co., Montreal, Que.
GALVANIZED IRON
*A. C. Leslie & Co., Montreal.
GALVANIZED SHEETS
*Dominion Sheet Metal Co., Hamilton, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
GALVANIZERS
Acme Stamping & Tool Works, Ltd., Hamilton, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*The Pedlar People, Ltd., Oshawa.
GASOLINE ENGINES
*Ontario Wind & Pump Co., Ltd., Toronto, Ont.
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
GASOLINE FIRE ENGINES
*Waterous Engine Works Co., Ltd., Brantford, Ont.
GASOLINE STORAGE SYSTEMS, special underground
*S. F. Bowser & Co., Toronto.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
GASOLINE
*The Imperial Oil Co., Ltd., Toronto, Ont.
GAUGES
*Brown Engineering Corporation, Toronto, Ont.
GEARS, cut
*Brown Engineering Corporation, Toronto, Ont.
*Hamilton Gear and Machine, Toronto.
GELATINE
Canada Gelatine Co., Ltd., Brantford, Ont.
GENERATORS
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
GILDING METAL
*Dominion Copper Products Co., Ltd., Montreal, Que.
GLASSWARE
Dominion Glass Co., Ltd., Montreal, Que.
GLASSWARE, cut
Roden Bros., Ltd., Toronto.
GLASS FOR BUILDINGS
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLASS BENDERS
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLASS, mirror
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
GLOVES AND MITTS
*A. R. Clarke & Co., Ltd., Toronto.
Craig, Cowan Co., Ltd., Toronto.
GLUE
Canada Glue Co., Ltd., Brantford, Ont.
GOLD-FILLED WIRE AND PLATE
Canadian Seamless Wire Co., Toronto, Ont.
GOLD AND SILVER REFINERS
Canadian Seamless Wire Co., Toronto, Ont.
GRAIN CRUSHERS, rapid, easy
J. Fleury's Sons, Aurora, Ont.
GRAPE JUICE
J. J. McLaughlin, Ltd., Toronto.
The Welch Co., Ltd., St. Catharines. Ont.
GRAPHITE, lubricating
Black Donald Graphite Company, Limited, Calabogie, Ont.
GRATES
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
GRATES, revolving, anticlinker
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
GRAVITY CARRIERS
*Canadian Mathews Gravity Carrier Co., Toronto, Ont.
GRILLES, metal
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
GRINDING AND POLISHING MACHINERY
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
GRINDING WHEELS
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
*The Dominion Abrasive Wheel Co., Ltd., New Toronto, Ont.
GRINDSTONES
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
GUNN SECTIONAL BOOKCASES
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
GUY ANCHORS
B. J. Coghlin Co., Ltd., Montreal.
GYPSUM PRODUCTS
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
HACK SAW BLADES AND FRAMES
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HACK SAW MACHINES
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HALL FURNITURE
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.
HAMS
F. W. Fearman Co., Ltd., Hamilton, Ont.
HANDLES (axe, pick, sledge hammers, etc.)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.
HANDLES, wood
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
HAND SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HANGERS
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
HARDWARE
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
Taylor-Forbes Co., Ltd., Guelph, Ont.
HARNESS
Lamontagne, Ltd., Montreal, Que.
HATS, ladies' felt and straw
Toronto Hat Mfg. Co., Toronto.
HAULAGE, wire rope
*The Dominion Wire Rope Co., Ltd., Montreal, Que.
HEADING SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
HEATERS
*Waterous Engine Works Co., Ltd., Brantford, Ont.
HEATERS, feed water
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
HEATERS, WATER FEED
*Mason Regulator & Engineering Co., Ltd., Montreal, Que.
HEATING APPLIANCES
*C. A. Dunham Co., Ltd., Toronto.
*The Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
HEATING SYSTEMS
*C. A. Dunham Co., Ltd., Toronto.
HEMLOCK, union and oak sole
Breithaupt Leather Co., Ltd., Kitchener, Ont.
HESSIANS
The Canadian Bag Co., Ltd., Montreal, Que.
HINGES
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
HOISTS, electric and pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*Northern Crane Works, Ltd., Walkerville, Ont.
HOSE, fire and rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha & Rubber, Ltd., Toronto, Ont.
HOUSES, factory made
Wm. H. White, Ville St. Pierre, Montreal, Que.
HYDRAULIC TURBINES
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
ICE CREEPERS
Parmenter & Bulloch Co., Ltd., Gananoque, Ont.
ICE-MAKING MACHINERY
The Linde Canadian Refrigeration Co., Ltd., Montreal, Que.
INGOT METALS
*Brown's Copper & Brass Rolling Mills, Ltd., New Toronto, Ont.
INSERTED TOOTH SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
INSULATING COMPOUNDS
*The Imperial Varnish & Color Co., Ltd., Toronto.
INSULATING PAPERS
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
INSULATION VULCANIZED FIBRE
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
INTERLOCKING RUBBER TILING
*Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd., Toronto, Ont.
IRON
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
IRON AND STEEL BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
IRON STAIRWAYS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
IRONWORK, architectural
*Canada Wire & Iron Goods Co., Hamilton, Ont.
IRONWORK, ornamental
*Canada Wire & Iron Goods Co., Hamilton, Ont.
JACKS
Globe Engineering Co., Ltd., Hamilton, Ont.
JAM, canned goods, etc.
E. D. Smith & Son, Ltd.
JAPANS, enamels, etc.
A. Muirhead Co., Ltd., Toronto.
*The Imperial Varnish & Color Co., Ltd., Toronto. Ont.
JIGS AND TOOLS
*Brown Engineering Corporation, Toronto, Ont.
JOINTERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
JELLY POWDER
S. H. Ewing & Sons, Montreal.
JEWELRY, enamelled souvenir
*Caron Bros., Montreal, Que.
JEWELRY, gold-filled
*Caron Bros., Montreal, Que.
JOIST HANGERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
JUNCTION BOXES, cable
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
KINDLING
Standard Fuel Co., Toronto, Ont.
KNIFE GRINDERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
KNITTED GOODS
*Penman's, Ltd., Paris, Ont.
KNIVES
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.
Simonds Canada Saw Co., Ltd., Montreal, Que.
KNIVES, pulp and paper
Henry Disston & Sons, Toronto.
The Peter Hay Knife Co., Ltd., Galt, Ont.
KODAKS AND PHOTOGRAPHIC SUPPLIES
Canadian Kodak Co., Ltd., Toronto.
LABELS
Lawson & Jones, Ltd., London, Ont.
LABELS, lithographed
Harris Lithographing Co., Ltd., Toronto, Ont.
LABORATORY SUPPLIES
Canadian Laboratory Supplies, Ltd., Toronto.
LACE LEATHER
F. C. McCordick, St. Catharines, Ont.
*The D. K. McLaren Belting Co., Ltd., Montreal, Que.
*The J. C. McLaren Belting Co., Ltd., Montreal, Que.
LADDERS
Stratford Mfg. Co., Ltd., Stratford,, Ont.
LADLES, foundry
*Northern Crane Works, Ltd., Walkerville, Ont.
LARD
F. W. Fearman Co., Ltd., Hamilton, Ont.
LATH
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
LATHE CHUCKS
Ker & Goodwin, Brantford, Ont.
LATHE-DOGS
Canadian Billings & Spence, Ltd. Welland, Ont.
LATHES
*Canada Machinery Corporation, Ltd., Galt, Ont.
LAUNCHES
Peterboro Canoe Co., Ltd., Peterboro, Ont.
LAWN MOWERS
Taylor-Forbes Co., Ltd., Guelph, Ont.
LAWN SWINGS
Stratford Mfg. Co., Ltd., Stratford, Ont.
LAVATORIES, enameled
Amherst Foundry Co., Ltd., Amherst, N.S.
LAUNDRY SINKS
Amherst Foundry Co., Ltd., Amherst, N.S.
LEAD
*Consolidated Mining & Smelting Co. of Canada, Ltd., Montreal.
LEAD GRINDERS
Benjamin Moore & Co., Ltd., Toronto, Ont.
LEAD PIPE
*Hoyt Metal Co., Toronto, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
*The Canada Metal Co., Toronto.
LEAD SHEET
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
LEATHER
The Robson Leather Co., Ltd., Oshawa, Ont.
LEATHER, bookbinders'
Clarke & Clarke, Ltd., Toronto.
LEATHER, fancy
Clarke & Clarke, Ltd., Toronto.
LEATHER GOODS
Lamontagne, Ltd., Montreal, Que.

*For Display Advertisement see Index, Page 53

LEATHER, hemlock, union and oak sole
The Breithaupt Leather Co., Ltd., Kitchener, Ont.
LEATHER, patent colt and side leather
*A. R. Clarke & Co., Ltd., Toronto.
LEATHER, sheep skin, etc.
Clarke & Clarke, Ltd., Toronto.
LEATHER, upholstering
Clarke & Clarke, Ltd., Toronto.
LEATHER, upper
A. Davis & Son., Ltd., Kingston, Ont.
King Brothers Co., Ltd., Whitby, Ont.
LINK BELT, Ewart, and sawmill rivetted
*Canadian Link-Belt Co., Toronto.
LINK BELTING
*The Dodge Mfg. Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
LINOLEUM
Dominion Oil Cloth Co., Ltd., Montreal, Que.
LITHOGRAPHERS
American Bank Note Co., Ottawa, Ont.
Harris Lithographing Co., Ltd., Toronto, Ont.
LOCKERS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*Geo. B. Meadows, Wire, Iron and Brass Works Co., Toronto. Ont.
LOCOMOTIVES, industrial
*Montreal Locomotive Works, Ltd., Montreal, Que.
LOCOMOTIVE & MARINE BRASS WORKS
The James Morrison Brass Mfg. Co., Ltd., Toronto.
LOOSE LEAF SYSTEMS
Copeland-Chatterson Co., Ltd., Brampton, Ont.
Lowe-Martin Co., Ottawa, Ont.
LUGS, for silos and water tanks
*Ontario Wind Engine & Pump Co., Ltd., Toronto.
LUMBER
*Brown Corporation, La Tuque, Que.
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
G. & J. Esplen, Montreal, Que.
LUMBER, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
LUMBER, spruce and pine, cedar railway ties and shingles
*Bathurst Lumber Co., Ltd., Bathurst, N.B.
LUMBER, red pine and spruce
Gillies Bros., Ltd., Braeside, Ont.
LUMBER, White pine
Gillies Bros., Ltd., Braeside, Ont.
LUMBERING BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
MACHINE KNIVES
*Galt Knife Co., Ltd.
*E. C. Atkins & Co., Inc., Hamilton, Ont.
Henry Disston & Sons, Toronto.
MACHINE TOOLS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINE WORK, special and repairs
*Canadian Rumely Co., Ltd., Toronto, Ont.
MACHINERY AND UTENSILS FOR BAKERS
Fletcher Mfg. Co., Ltd., Toronto.
MACHINERY AND UTENSILS FOR CANDY
Fletcher Mfg. Co., Ltd., Toronto.
MACHINERY AND UTENSILS FOR ICE CREAM
Fletcher Mfg. Co., Ltd., Toronto.
MACHINERY, conveying
*Canadian Link-Belt Co., Toronto.
*Canadian Mathews Gravity Carrier Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
MACHINERY, flour mill
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
MACHINERY, ice cream
J. J. McLaughlin, Ltd., Toronto.
MACHINERY, grinding
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
Canadian Mead Morrison Co., Ltd., Montreal, Que.
J. & R. Weir, Montreal, Que.
*Northern Crane Works, Ltd., Walkerville, Ont.
MACHINERY, iron working
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINERY, pulp mill
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
MACHINERY, punching and shearing
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINERY, railroad and car-shop
*Canada Machinery Corporation, Ltd., Galt, Ont.
*John Bertram & Sons Co., Ltd., Dundas, Ont.
MACHINERY, roadmaking
Sawyer-Massey Co., Ltd., Hamilton, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
MACHINERY, sawmill
The E. Long Mfg. Co., Ltd., Orillia, Ont.
P. Payette & Co., Pentanguishene, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Yates, P. B., Machine Co., Ltd., Hamilton, Ont.
MACHINERY, sheet metal working
Brown, Boggs Co., Ltd., Hamilton, Ont.
*Canada Machinery Corporation, Ltd., Galt, Ont.
MACHINERY, transmission
*Dodge Mfg. Co., Ltd., Toronto.
*Goldie & McCulloch Co., Ltd., Galt, Ont.
MACHINERY, woodworking
*Canada Machinery Corporation, Ltd., Galt, Ont.
*Yates, P. B., Machine Co., Ltd., Hamilton, Ont.
Preston Woodworking Machinery Co., Ltd., Preston, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
MACHINE WRENCHES
*Canadian Billings & Spencer, Ltd., Welland, Ont.
MACHINES, painting
Spramotor Co., London, Ont.
MAGNESITE
*Canadian Carbonate Co., Montreal. Que.
MALLEABLE IRON CASTINGS
*Galt Malleable Iron Co., Ltd., Galt, Ont.
MAPLE PRODUCTS
*Maples, Ltd., Toronto, Ont.
MARTINGALE RINGS AND SLIDE LOOPS
The Arlington Co. of Canada, Ltd., Toronto, Ont.
MATCHERS
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
MATCHES
*The E. B. Eddy Co., Ltd., Hull, Que.
MECHANICAL STOKERS
*The Jones Underfeed Stoker Co., Ltd., Toronto.
METAL, babbitt
*Canada Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
Alonzo W. Spooner, Ltd., Port Hope, Ont.
METAL CEILINGS
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
METAL LATH
*The Pedlar People, Ltd., Oshawa, Ont.
METAL PACKING
*Garlock Packing Co., Hamilton, Ont.
METAL, spinning and stamping
*The Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
METAL PROTECTIVE PAINTS
Sturgeons Limited, Toronto.
METAL SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
METAL SHINGLES
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
METAL STAMPINGS
Canadian Cartridge Co., Ltd., Hamilton, Ont.
METERS, water
Canadian Cartridge Co., Ltd., Hamilton, Ont.
MILK DEALERS' MACHINERY AND SUPPLIES
De Laval Dairy Supply Co., Ltd., Peterboro, Ont.
MILLBOARD, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto.
MILLING CUTTERS
*Pratt & Whitney Co. of Canada, Dundas, Ont.
MITTS AND GLOVES, Indian, tan, red deerskins
Holt, Renfrew, Ltd., Quebec, Que.
*A. R. Clarke & Co., Ltd., Toronto.
MIXERS, chocolate, dough and paint
Fletcher Mfg. Co., Ltd., Toronto.
MOCCASINS AND SLIPPERS, Indian tanned leathers
Holt, Renfrew, Ltd., Quebec, Que.
MONEL METAL
International Nickel Co. of Canada, Ltd., Toronto.
MORTISERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
MOTOR CARS
*Ford Co. of Canada, Ford, Ont.
MOTORS, electric (alternating current)
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
*Jones & Moore Electric Co., Ltd., Toronto, Ont.
*Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
*T. & H. Electric Co., Hamilton, Ont.
MOTORS, electric (direct current)
*Canadian Westinghouse Co., Ltd., Hamilton, Ont.
*Jones & Moore Electric Co., Ltd., Toronto. Ont.
*T. & H. Electric Co., Hamilton.
MOTORS, electric (repairing)
*T. & H. Electric Co., Hamilton.
MOULDERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
NAILS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
NAILS, copper
Parmenter & Bullock Co., Ltd., Gananoque, Ont.
NAILS, wire
Parmenter & Bullock Co., Ltd., Gananoque, Ont.
NAPHTHA
*The Imperial Oil Co., Ltd., Toronto, Ont.
NICKEL CASTINGS
International Nickel Co. of Canada, Ltd., Toronto.
NICKEL METAL
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
International Nickel Co. of Canada, Ltd., Toronto.
NICKEL OXIDE
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
Coniagas Reduction Co., Ltd., St Catharines, Ont.
International Nickel Co. of Canada, Ltd., Toronto.
NUTS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
OAKUM, plumbers, Canadian Navy
Factory Waste & Metal Co., Montreal, Que.
OAT CRUSHERS AND FLAKERS
J. Fleury's Sons, Aurora, Ont.
OFFICE DESKS
*Goderich Organ Co., Goderich, Ont.
OFFICE EQUIPMENT
Lowe-Martin Co., Ltd., Ottawa, Ont.
*Office Specialty Co., Newmarket, Ont.
OFFICE FURNITURE
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
OILS
*A. Ramsay & Son Co., Montreal, Que.
OIL FILTRATION AND CIRCULATING SYSTEMS
*S. F. Bowser & Co., Toronto, Ont.
OIL STORAGE SYSTEMS, self-measuring
*S. F. Bowser & Co., Toronto, Ont.
OIL COMPANIES
*Canadian Oil Cos., Toronto.
Commercial Oil Co., Ltd., Hamilton, Ont.
*Imperial Oil Co., Toronto.
OILS (petroleum products)
*British American Oil Co., Ltd., Toronto, Ont.
*The Imperial Oil Co., Toronto.
OILS, road
*The Barrett Co., Ltd., Toronto and Montreal.
OILCLOTHS, floor and table
Dominion Oil Cloth Co., Ltd., Montreal, Que.
ORGANS
Casavant Freres, Limitee, St. Hyacinthe, Que.
*Goderich Organ Co., Goderich, Ont.
ORGANS, pipe
Casavant Freres, Limitee, St. Hyacinthe, Que.
ORGANS, parlor
*Goderich Organ Co., Goderich, Ont.
ORNAMENTAL IRON WORK
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*Dennis Wire & Iron Works Co., London, Ont.
*The Geo. B. Meadows, Toronto Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
OVERALLS
Peerless Overall Co., Rock Island, Que.
Walker Pant & Shirt Co., Walkerville and Chatham, Ont.
OVERCOATINGS
Rosamond Woollen Co., Almonte, Ont.
OVERHEAD RUNWAYS
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
OXY-ACETYLENE WELDING
*L'Air Liquide Society, Montreal, Que.
*The Prest-O-Lite Co., Inc., Toronto
OXYGEN
*L'Air Liquide Society, Montreal Que.
PACKING BOXES
Barchard & Co., Ltd., Toronto.
PACKING, engine
*Garlock Packing Co., Hamilton, Ont.
PACKING, rubber
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha & Rubber Mfg. Co. of Toronto, Ltd.
*Jenkins Bros., Ltd., Montreal, Que.
PAILS AND TUBS, wooden
The C. Beck Mfg. Co., Ltd., Penetanguishene, Ont.
PAINTERS' SUPPLIES
A. Muirhead Co., Ltd., Toronto.
PAINTS
R. C. Jamieson & Co., Ltd., Montreal, Que.
PAINTS AND VARNISHES
A. Muirhead Co., Ltd., Toronto.
Benjamin Moore & Co., Ltd., Toronto, Ont.
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
The Staneland Co., Ltd., Victoria, B.C.
*A Ramsay & Sons Co., Montreal, Que.
Standard Paint Co. of Canada, Ltd., Montreal, Que.

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PAINTS, preservative
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
Standard Paint Co. of Canada, Ltd., Montreal, Que.
*The Barrett Co., Ltd., Toronto and Montreal.

PAPER, bags, all kinds
*Beveridge Paper Co., Ltd., Montreal.

PAPER BOXES
King Paper Box Co., Ltd., Montreal, Que.

PAPER, coated, book and label
*Provincial Paper Mills, Ltd., Georgetown, Ont.

PAPER, coated box board
*Provincial Paper Mills, Ltd., Georgetown, Ont.

PAPER, coated cover
*Provincial Paper Mills, Ltd., Georgetown, Ont.

PAPER, envelope
*Provincial Paper Mills, Ltd., Georgetown, Ont.
The Toronto Paper Mfg. Co., Cornwall, Ont.

PAPER, enamelled blotting
*Provincial Paper Mills, Ltd., Georgetown, Ont.

PAPER, label
*Provincial Paper Mills, Ltd., Georgetown, Ont.

PAPER, ledger
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.
The Toronto Paper Mfg. Co., Cornwall, Ont.

PAPER, super-book
The Toronto Paper Mfg. Co., Cornwall, Ont.

PAPER, writing
The Toronto Paper Mfg. Co., Cornwall, Ont.
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.

PAPERS, bond
*Howard Smith Paper Mills, Ltd., Montreal, Que.
*Rolland Paper Co., Ltd., Montreal, Que.

PAPERS, building
*Bathurst Lumber Co., Ltd., Bathurst, N.B.
*The Riordon Pulp & Paper Co., Montreal, Que.
Standard Paint Co. of Canada, Ltd., Montreal, Que.

PARCHMENT PAPER, for wet packing
*Beveridge Paper Co., Ltd., Montreal.

PARK SEATS
Stratford Mfg. Co., Ltd., Stratford, Ont.

PARLOR SUNDRIES
The Geo. McLagan Furniture Co., Ltd., Stratford, Ont.

PATENTS
Fetherstonhaugh & Co., Toronto.
*Ridout & Maybee, Toronto, Ont.
*Harold C. Shipman & Co., Ottawa.

PATENT LITIGATION
*Ridout & Maybee, Toronto, Ont.
*Harold C. Shipman & Co., Ottawa, Ont.

PAY ROLL AUDITS
*International Business Machines, Ltd., Toronto, Ont.

PERFORATED METALS
*Canada Wire & Iron Goods Co., Hamilton, Ont.

PERFORATED MUSIC ROLLS
The Otto Higel Co., Ltd., Toronto.

PERFUMES AND TOILET PREPARATIONS
Sovereign Perfumes, Ltd., Toronto.

PETROLEUM PRODUCTS
*The Imperial Oil Co., Ltd., Toronto, Ont.

PHOTO MAILERS
*The Thompson & Norris Co. of Canada, Ltd., Niagara Falls, Ont.

PIANO ACTIONS
The Otto Higel Co., Ltd., Toronto.

PIANO KEYS
The Otto Higel Co., Ltd., Toronto.

PIANO, player actions
The Otto Higel Co., Ltd., Toronto.

PIANO STOOLS AND BENCHES
*Goderich Organ Co., Goderich, Ont.

PIG IRON
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*M. A. Hanna & Co., Toronto.

PINS, society, emblems and badges
*Caron Bros., Montreal, Que.

PIPE, cast iron, for water and gas
National Iron Works, Ltd., Toronto, Ont.

PIPE COUPLINGS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

PIPE COVERINGS
*Eureka Mineral Wood & Asbestos Co., Toronto, Ont.

PIPES, culvert
*The Pedlar People, Ltd., Oshawa, Ont.

PIPE AND NIPPLES, black and galvanized
*Canadian Tube & Iron Co., Ltd., Montreal, Que.

PIPE, sewer
Hamilton & Toronto Sewer Pipe Co., Ltd., Hamilton, Ont.

PIPE, soil and fittings
Anthes Foundry, Ltd., Toronto and Winnipeg.
Warden King Ltd., Montreal, Que.

PISTON RODS
*The Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*Union Drawn Steel Co., Ltd., Hamilton, Ont.

PLANERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

PLANING MILLS
G. & J. Esplen, Montreal, Que.

PLASTERING TROWELS
*E. C. Atkins & Co., Inc., Hamilton, Ont.

PLOWS
J. Fleury's Sons, Aurora, Ont.

PLUMBERS' SUPPLIES
The Garth Co., Montreal, Que.
The James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.

PNEUMATIC DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

POLE LINE MATERIAL (wooden insulator top pins, side blocks, pole steps, cross arms)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.

POLES, flag
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.

PORK PACKERS AND CHEESE EXPORTERS
The Ingersoll Packing Co., Ltd., Ingersoll, Ont.

POWDER, blasting
Canadian Explosives, Ltd., Montreal, Que.

POWER PRESSES
*Hydraulic Machinery Co., Ltd., Montreal, Que.

PRESSES, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.

PRESSES, sheet metal stamping
Brown, Boggs Co., Ltd., Hamilton, Ont.
*Canada Machinery Corporation, Ltd., Galt, Ont.

PRESSES, veneer
*Canada Machinery Corporation, Ltd., Galt, Ont.

PRINTING AND LITHOGRAPHING
Lawson & Jones, Ltd., London, Ont.

PULLEYS
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

PULLEYS, wood split
*Bernard Industrial Co., Fortierville, P.Q.

PULP, bleached sulphite
*Riordan Sales Co., Ltd., Montreal, Que.

PULP, unbleached sulphite
*Riordan Sales Co., Ltd., Montreal,

PULP, sulphate and sulphite
*Bathurst Lumber Co., Ltd., Bathurst, N.B.

PULP AND PAPER MILL MACHINERY
*The Hydraulic Machinery Co., Limited, Montreal.

PUMPS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*E. Leonard & Sons, Ltd., London, Ont.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
Spramotor Co., London, Ont.
*The Electric Steel & Metals Co., Ltd., Welland, Ont.

PUMPS, boiler feed
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.

PUMPS, centrifugal
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
*Dominion Forge & Stamping Co., Ltd., Walkerville, Ont.

PUMPS, hydraulic
*The Hydraulic Machinery Co., Limited, Montreal.

PUMPS, turbine and reciprocating
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.

PUNCHES
*Pratt & Whitney Co., Dundas, Ont.

RADIATORS
Taylor-Forbes Co., Ltd., Guelph, Ont.
Warden King, Ltd., Montreal, Que.

RAILINGS, brass and iron
*Dennis Wire & Iron Works Co., London, Ont.

RAILWAY SUPPLIES
*Canadian Steel Foundries, Ltd., Montreal, Que.
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
B. J. Coghlin Co., Ltd., Montreal, Que.

READY-TO-WEAR GARMENTS, ladies'
H. C. Boulter Co., Ltd., Toronto.

REAMERS
*Pratt & Whitney Co., Dundas, Ont.
*Butterfield & Co., Rock Island, P.Q.

RECEPTACLES, fibre
The Diamond State Fibre Co. of Canada, Ltd., Toronto.

REFRIGERATORS
Sanderson-Harold Co., Ltd., Paris, Ont.

REFRIGERATING MACHINERY
The Linde Canadian Refrigeration Co., Ltd., Montreal, Que.

REFRIGERATORS, store, homes and institutions
Ham & Nott Co., Ltd., Brantford, Ont.
John Hillock & Co., Ltd., Toronto.

REINFORCEMENT BARS
*Burlington Steel Co., Ltd., Hamilton, Ont.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

REINFORCEMENT FOR CONCRETE
*Canada Wire & Iron Goods Co., Hamilton, Ont.

REINFORCEMENT FOR CONCRETE ROOFING, metal
*The Pedlar People, Ltd., Oshawa, Ont.

REVOLVING DOORS
*A. B. Ormsby Co., Ltd., Toronto.

RINGS, gold
*Caron Bros., Montreal, Que.

RIVETS
*Canadian Tube & Iron Co., Ltd., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.

RIVETS, bifurcated and tubular
Parmenter & Bullock Co., Ltd., Gananoque, Ont.

RIVETS AND BURRS, iron, copper and brass
Parmenter & Bullock Co., Ltd., Gananoque, Ont.

ROCK DRILLS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.

RODS, fibre
The Diamond State Fibre Co. of Canada, Ltd., Toronto.

ROLLING STEEL DOORS
*A. B. Ormsby Co., Ltd., Toronto.

ROOFING, metal
*A. B. Ormsby Co., Ltd., Toronto.

ROOFINGS, plastic, liquid, rubber
*Beveridge Paper Co., Ltd., Montreal, Supply Department.

ROOFING, ready to lay
Standard Paint Co. of Canada, Ltd., Montreal, Que.
*The Barrett Co., Ltd., Toronto and Montreal.

ROOF TRUSSES
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
*Dominion Bridge Co., Ltd., Montreal, Que.

ROPE
*Doon Twines, Ltd., Doon, Ont.
*Shurly & Derrett, Ltd., Toronto.

ROPE, cotton
Hamilton Cotton Co., Hamilton, Ont.

RUBBER FOOTWEAR
*Gutta Percha & Rubber Ltd., Toronto, Ont.
The Miner Rubber Co., Ltd., Grandy, Que.

RUBBER GOODS
*Canadian Consolidated Rubber Co., Ltd., Montreal, Que.
*Gutta Percha & Rubber Limited, Toronto.

RUBBER MACHINERY
*The Hydraulic Machinery Co., Limited. Montreal.

RUBBER MILL MACHINERY
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.

RUBBER PACKING
*Garlock Packing Co., Hamilton, Ont.

RULES
The Lufkin Rule Co. of Canada, Ltd., Windsor, Ont.

SADDLERY HARDWARE
*Dominion Forge & Stamping Co., Walkerville, Ont.

SAFES
*Goldie & McCulloch Co., Ltd., Galt, Ont.

SAMPLE CASES
*The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto, Ont.
J. Eveleigh & Co., Ltd., Montreal, Que.

SAND RAMMERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.

SASH CORD, cotton
Hamilton Cotton Co., Hamilton, Ont.

SALT
*Canadian Salt Co., Ltd., Windsor, Ont.
Dominion Salt Co., Ltd., Sarnia, Ont.

SANITARY PAPER TOWELS
*E. B. Eddy Co., Ltd., Hull, Que.

SAVE-ALLS
*The Hydraulic Machinery Co., Limited, Montreal.

SAW SHARPENING MACHINERY
*Canadian Hart Wheels, Ltd., Hamilton, Ont.

SAWS
*E. C. Atkins & Co., Ltd., Hamilton, Ont.
Henry Disston & Sons, Ltd., Toronto, Ont.
Shurly & Deitrich, Galt, Ont.

SAWS, cross-cut and band
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
Shurly & Deitrich, Galt, Ont.

SAWS, circular mill
Shurly & Deitrich, Galt, Ont.

SAWS, of all kinds
Simonds Canada Saw Co., Ltd., Montreal, Que.

SAWS, rip
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
Shurly & Deitrich, Galt, Ont.

SAWMILLS
G. & J. Esplen, Montreal, Que.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.

SCALES
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.

SCREENS
*Canada Wire & Iron Goods Co., Hamilton, Ont.

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SCREEN DOORS AND WINDOWS
Sanderson-Harold Co., Ltd., Paris, Ont.
Ham & Nott Co., Ltd., Brantford, Ont.
SCREWS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
*The National Acme Mfg. Co., Montreal, Que.
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
SCREW PLATES
*Butterfield & Co., Rock Island, P.Q.
SECURITIES, engraved
American Bank Note Co., Ottawa, Ont.
SERGES
Rosamond Woollen Co., Almonte, Ont.
SEWAGE SCREENS
*The Hydraulic Machinery Co., Limited, Montreal.
SHAFTING
Canada Forge Co., Ltd., Welland, Ont.
*Canadian Drawn Steel Co., Ltd., Hamilton, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*Union Drawn Steel Co., Ltd., Hamilton, Ont.
*Dodge Mfg. Co., Ltd., Toronto.
SHANTY BLANKETS
Slingsby Mfg. Co., Ltd., Brantford, Ont.
SHAPERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
SHEAR BLADES, iron
*Galt Knife Co., Ltd.
The Peter Hay Knife Co., Ltd., Galt, Ont.
SHEATHING
*The Barrett Co., Ltd., Toronto and Montreal.
SHEATHING, asbestos corrugated
*Eureka Mineral Wool & Asbestos Co., Toronto, Ont.
SHEET METAL STAMPINGS
Acme Stamping & Tool Works, Ltd., Hamilton, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
SHEETS, fibre
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
SHEETS, galvanized
*Dominion Sheet Metal Co., Ltd., Hamilton, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.
SHINGLES
*Bathurst Lumber Co., Ltd., Bathurst, N.B.
SHINGLE SAWS
*E. C. Atkins & Co., Inc., Hamilton, Ont.
SHINGLE STAINS
Sturgeons, Limited, Toronto.
SHIP BUILDERS
J. & R. Weir, Montreal, Que.
SHIRTS
John W. Peck & Co., Ltd., Montreal, Que.
SHIRTS, workmen's
*A. R. Clarke & Co., Ltd., Toronto.
SHOE PEGWOOD
O. Chalifour, Quebec, Que.
SHOE LININGS
Galt Knitting Co., Ltd., Galt, Ont.
SHOOKS
Barchard & Co., Ltd., Montreal.
SIGNAL CELLS
*Canadian National Carbon Co., Ltd., Toronto.
SIGNS, Advertising.
Cross Press & Sign Co., Ltd., Woodstock, Ont.
SILENT CHAIN DRIVES
*Canadian Link-Belt Co., Toronto.
SILVER BULLION
Coniagas Reduction Co., Ltd., St. Catharines, Ont.
*Deloro Smelting & Refining Co., Ltd., Deloro, Ont.
SILVERSMITH
Standard Silver Co., Toronto, Ont.
SILVERWARE, sterling
Roden Bros., Ltd., Toronto, Ont.
SINKS, enamelled
Amherst Foundry Co., Ltd., Amherst, N.S.

SKIFFS
Peterboro Canoe Co., Ltd., Peterboro, Ont.
SKYLIGHTS
*A. B. Ormsby Co., Ltd., Toronto.
*The Pedlar People, Ltd., Oshawa, Ont.
SLOTTERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
SMOKE CONSUMERS
*The Jones Underfeed Stoker Co., Ltd., Toronto, Ont.
SMOKE-STACKS
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*E. Leonard & Sons, Limited, London, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
SOAPS
J. Barsalou & Co., Ltd., Montreal.
SOAP (soft, oil)
*The Imperial Varnish & Color Co., Ltd., Toronto, Ont.
SODA WATER FOUNTAINS
J. J. McLaughlin, Ltd., Toronto.
SODA WATER FOUNTAINS AND ACCESSORIES
Fletcher Mfg. Co., Ltd., Toronto.
SOIL PIPE
Anthes Foundry, Ltd., Toronto.
SOLDER
Alonzo W. Spooner, Ltd., Port Hope, Ont.
*Canada Metal Co., Toronto, Ont.
*Hoyt Metal Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
SOLDER, silver
Geo. H. Lees & Co., Hamilton, Ont.
SOLDER, wire and bar
American Can Co., Montreal, and Hamilton.
SOLDERING IRONS AND COPPERS
Brown, Boggs Co., Ltd., Hamilton.
SNOWSHOES
Holt, Renfrew, Ltd., Quebec, Que.
SPECIAL MACHINERY
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
Globe Engineering Co., Ltd., Hamilton, Ont.
SPELTER
*Consolidated Mining & Smelting Co. of Canada, Ltd., Montreal.
SPINNING AND STAMPING
*Tallman Brass & Metal, Ltd., Hamilton, Ont.
SPIRAL CONVEYORS
*Canadian Mathews Gravity Carrier Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
SPLIT PEAS
H. Murton, Ltd., Guelph, Ont.
SPOOLS
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
SPORTING MEDALS AND TROPHIES
Roden Bros., Ltd., Toronto, Ont.
SPRAYERS
Spramotor Co., London, Ont.
SPRING COTTERS
*Richards-Wilcox Canadian Co., Ltd., London, Ont.
SPRINGS
*Canadian Steel Foundries, Ltd., Montreal, Que.
B. J. Coghlin Co., Ltd., Montreal.
Guelph Spring & Axle Co., Ltd., Guelph, Ont.
SPRINGS, carriage and automobile
Guelph Spring & Axle Co., Ltd.,
SPRING SHACKLE BOLTS
*John Morrow Screw & Nut Co., Ltd., Ingersoll, Ont.
SPRINKLER SYSTEMS
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*The Bennett & Wright Co., Ltd., Toronto, Ont.
*Purdy, Mansell, Ltd., Toronto.
SPROCKET WHEELS
*Canadian Link Belt Co., Ltd., Toronto, Ont.
STAINS
R. C. Jamieson & Co., Ltd., Montreal, Que.
STAINS, creosote shingle
A. Muirhead Co., Ltd., Toronto.
STAMPINGS, heavy steel
Canadian Cartridge Co., Ltd., Hamilton, Ont.

STAMPS, steel, brass and rubber
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
STATIONERY, office
Harris Lithographing Co., Toronto.
STEAM PIPE AND BOILER COVERINGS, asbestos
*Eureka Mineral Wool & Asbestos Co., Toronto.
STEAM SHOVELS
*Canadian Mead Morrison Co., Ltd., Montreal, Que.
STEAM SPECIALTIES
*C. A. Dunham Co., Ltd., Toronto.
STEAM TRAPS
*C. A. Dunham Co., Ltd., Toronto.
STEEL
*Nova Scotia Steel & Coal Co., Ltd., New Glasgow, N.S.
*Burlington Steel Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
STEEL BILLETS AND BLOOMS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STEEL BUILDINGS
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
*Dominion Bridge Co., Ltd., Montreal, Que.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*Maritime Bridge Co., Ltd., New Glasgow, N.S.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, P.Q.
*The Pedlar People, Ltd., Oshawa, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
STEEL CASTINGS
Beauchemin & Fils, Ltd., Sorel, Que.
*Canadian Steel Foundries, Ltd., Montreal, Que.
*Dominion Foundries and Steel Co., Ltd., Hamilton, Ont.
*Electric Steel & Metals Co., Ltd., Welland, Ont.
STEEL DOORS, rolling
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
STEEL FILING EQUIPMENT
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
STEEL PLATE WORK
*Canadian Ingersoll Rand Co., Ltd., Sherbrooke, Que.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*MacKinnon Steel Co., Limited, Sherbrooke, P.Q.
*Toronto Iron Works, Ltd., Toronto.
STEEL RODS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STEEL SASH
*Dennis Wire & Iron Works Co., London, Ont.
*The A. B. Ormsby Co., Ltd., Toronto, Ont.
STEEL SHELVING
*Dennis Wire & Iron Works Co., London, Ont.
STEEL WIRE RODS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
STELLITE
*Deloro Smelting & Refining Co., Ltd., Deloro and Toronto.
STENCILS, brass
Pritchard-Andrews Co. of Ottawa, Ltd., Ottawa, Ont.
STEREO TISSUE AND BLOTTINGS
*Beveridge Paper Co., Ltd., Montreal.
STEREOTYPING
Central Press Agency, Toronto.
STOKERS
*The Jones Underfeed Stoker Co., Ltd., Toronto, Ont.
STOOLS, steel factory
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
STORAGE BATTERIES
*Northern Electric Company, Limited, Montreal, Que.
*Prest-O-Lite Company of Canada, Limited, Toronto.
STORE FITTINGS
The Canadian Office & School Furniture Co., Ltd., Preston, Ont.
STOVES
Smith Foundry Co., Ltd., Fredericton, N.B.

STOVE POLISH GRAPHITE
Black Donald Graphite Company, Limited, Calabogie, Ont.
STOVES AND RANGES
*McClary Mfg. Co., London, Ont.
STRAWS, paper drinking
Fletcher Mfg. Co., Ltd., Toronto.
STRUCTURAL STEEL WORK
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*Dominion Bridge Co., Montreal.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*McGregor & McIntyre, Ltd., Toronto, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*The Canadian Bridge Co., Ltd., Walkerville, Ont.
SUIT CASES
J. Eveleigh & Co., Ltd., Montreal.
*The M. Langmuir Mfg. Co., of Toronto. Ltd., Toronto, Ont.
SULPHUR BURNERS
*The Hydraulic Machinery Co., Limited, Montreal.
SUPPLY DEALERS
*The Foundation Co., Ltd., Montreal, Que.
SURFACERS
*Canada Machinery Corporation, Ltd., Galt, Ont.
*P. B. Yates Machine Co., Ltd., Hamilton, Ont.
SWITCHES, railway
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
SWITCHES AND FROGS
*Canadian Steel Foundries, Ltd., Montreal, Que.
SWITCH STANDS
Canadian Ramapo Iron Works, Ltd., Niagara Falls, Ont.
TABLE COVERS, chenille
Hamilton Cotton Co., Hamilton, Ont.
TANKS
*Canadian Des Moines Steel Co., Limited, Chatham.
*Hamilton Bridge Works Co., Ltd., Hamilton, Ont.
*Toronto Iron Works, Ltd., Toronto.
*Chicago Bridge & Iron Works, Bridgeburg, Ont.
*E. Leonard & Sons, Ltd., London, Ont.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Maritime Bridge Co., Ltd., New Glasgow, N.S.
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
Wm. H. White, Ville St. Pierre, Montreal, Que.
TANKS, elevated steel
*Canadian Des Moines Steel Co., Limited, Chatham.
TANKS, steel storage
*Canadian Ingersoll Rand Co., Ltd., Sherbrooke, Que.
*MacKinnon Steel Co., Ltd., Sherbrooke, Que.
*Steel Trough & Machine Co., Ltd., Tweed, Ont.
TANNERS' OILS & GREASES
Salem Oil & Grease Co. of Canada, Limited, Farnham, Que.
TANNERS' SUPPLIES
*McClary Mfg. Co., London, Ont.
TAPS
*Butterfield & Co., Rock Island, P.Q.
*Pratt & Whitney Co., Dundas, Ont.
TAPES, measuring
The Lufkin Rule Co. of Canada, Ltd., Windsor, Ont.
TELEPHONE ACCESSORIES
*Northern Electric Co., Ltd., Montreal, Que.
TENTS
Turner, J. J., & Sons, Peterboro, Ont.
TERMINALS, electric cable
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
TERRA COTTA, architectural
Toronto Plate Glass Importing Co., Ltd., Toronto, Ont.
TEXTILE SUPPLIES (shuttles, bobbins, spools and picker sticks)
The Lachute Shuttle Co., Ltd., Lachute Mills, P.Q.
THUMB SCREWS
*Canadian Billings & Spencer, Ltd., Welland Ont.

*For Display Advertisement see Index, Page 53

TIE TAMPERS
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
TILING, rubber
*Gutta Percha & Rubber Ltd., Toronto, Ont.
TIME RECORDERS
*International Business Machines Co., Ltd., Toronto, Ont.
TINWARE, lithographed
*MacDonald Mfg. Co., Ltd., Toronto, Ont.
TIRES, bicycle, auto, carriage, truck, motorcycle.
*Gutta Percha & Rubber Ltd., Toronto, Ont.
TOILET PAPER, towels, tissues
*Beveridge Paper Co., Ltd., Montreal.
TOOLS, pneumatic
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
TOOLS, track
B. J. Coghlin Co., Ltd., Hamilton.
TOOLS, sheet metal workers'
Brown, Boggs Co., Ltd., Hamilton.
TRADE MARKS AND DESIGNS
*Ridout & Maybee, Toronto, Ont.
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
TRANSFORMERS
The Canadian Crocker-Wheeler Co., Ltd., St. Catharines, Ont.
TRANSLATIONS INTO FRENCH
Raoul Renault, Quebec City.
TRANSMISSION MACHINERY
*Canadian Link Belt Co., Toronto.
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
*The Waterous Engine Works Co., Ltd., Brantford, Ont.
TRAPS
*C. A. Dunham Co., Ltd., Toronto.
TROLLEYS
*Richard-Wilcox Canadian Co., Ltd., London, Ont.
*Northern Crane Works, Ltd., Walkerville, Ont.
TRUCKS
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Northern Crane Works, Ltd., Walkerville, Ont.
TRUCKS, brick, tile and lumber
*Waterous Engine Works Co., Ltd., Brantford, Ont.
TRUCKS, motor
*National Steel Car Co., Ltd., Hamilton, Ont.
TRUCKS FOR OFFICE AND VAULT USE
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
TRUNKS
Lamontagne, Ltd., Montreal, Que.
J. Eveleigh & Co., Ltd., Montreal.
*The M. Langmuir Mfg. Co., of Toronto, Ltd., Toronto.
TUBING, brass and copper
*Booth-Coulter Copper & Brass Co., Ltd., Toronto, Ont.
Canadian Seamless Wire Co., Toronto, Ont.
*Tallman Brass & Metal Co., Hamilton, Ont.
*Dominion Copper Products Co., Ltd., Montreal, Que.
TUBES, ice cream
Fletcher Mfg. Co., Ltd., Toronto.
TUBING, gold and silver
Canadian Seamless Wire Co., Toronto, Ont.
TUBES, fibre
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
TUMBLERS, foundry
*Northern Crane Works, Ltd., Walkerville, Ont.
*Smart-Turner Machine Co., Ltd., Hamilton, Ont.
TURBINES, steam
*The Canadian Crocker-Wheeler Co., Ltd., St. Catharines.
TURBINE PUMPS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
TWEEDS
Rosamond Woollen Co., Almonte, Ont.
TWINES
*Doon Twines, Ltd., Doon, Ont.
*Shurly & Derrett, Ltd., Toronto.
TWINES, binder
Brantford Cordage Co., Ltd., Brantford, Ont.
TWINES, cotton
Hamilton Cotton Co., Hamilton, Ont.
TWIST DRILLS
*John Morrow Screw & Nut Co., Ltd., Ingersoll.
*Pratt & Whitney Co. of Canada, Dundas, Ont.
UNDERWEAR
Galt Knitting Co., Ltd., Galt, Ont.
UNDERWEAR, imperial
Kingston Hosiery Co., Ltd., Kingston, Ont.
UNIONS
*Dart Union Co., Ltd., Toronto.
UPHOLSTERED FURNITURE, leather and tapestries
Imperial Rattan Co., Ltd.
VACCUM PUMPS
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
VALVES
*Canadian Fairbanks-Morse Co., Ltd., Montreal, Que.
*Jenkins Bros., Ltd., Montreal, Que.
*Kerr Engine Co., Ltd., Walkerville, Ont.
VALVES, for steam and water
*Jenkins Bros., Ltd., Montreal.
James Morrison Brass Mfg. Co., Ltd., Toronto, Ont.
VALVES, REDUCING
*Mason Regulator & Engineering Co., Ltd., Montreal, Que.
VARNISHES
*Ault & Wiborg Co. of Canada, Ltd., Toronto, Ont.
R. C. Jamieson & Co., Ltd., Montreal, Que.
VAULT FITTINGS, steel
*Office Specialty Mfg. Co., Ltd., Newmarket, Ont.
VAULTS AND VAULT DOORS
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
VENTILATORS
*A. B. Ormsby, Ltd., Toronto, Ont.
*The Pedlar People, Ltd., Oshawa, Ont.
WALLPAPERS
Staunton Limited, Toronto.
WASHERS
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
WASHERS, fibre
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
WASHERS, plate or wrought
London Rolling Mill Co., Ltd., London, Ont.
WASTE BASKETS, fibre
The Diamond State Fibre Co. of Canada, Ltd., Toronto.
WASTES, wool and cotton
Factory Waste & Metal Co., Montreal, Que.
WATERPROOF, cement coating
Benjamin Moore & Co., Ltd., Toronto, Ont.
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
*The Barrett Co., Ltd., Toronto and Montreal.
WATERPROOF, caselining
*Beveridge Paper Co., Ltd., Montreal, Supply Department.
WATER PAINTS
Sturgeons Limited, Toronto.
WEBBING, elastic
Hamilton Cotton Co., Hamilton, Ont.
WEBBING, non-elastic
Hamilton Cotton Co., Hamilton, Ont.
WELDING APPARATUS AND MATERIALS
*The Presto-O-Lite Co., Toronto.
WELL-DIGGING TOOLS AND MACHINERY
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
WHEELS, corundum and emery
*Canadian Hart Wheels, Ltd., Hamilton, Ont.
WELL DRILLING TOOLS AND MACHINERY
Oil Well Supply Co., Ltd., Petrolia, Ont.
WHIPS AND LASHES
Lay Whip Co., Rock Island, Que.
WHITE ARSENIC
Coniagas Reduction Co., Ltd., St. Catharines, Ont.
WHITE LEAD
*A. Ramsay & Son Co., Montreal.
WINDMILLS
*Ontario Wind Engine & Pump Co., Ltd., Toronto, Ont.
WIRE
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
*Laidlaw Bale Tie Co., Ltd., Hamilton, Ont.
WIRE BALE TIES
*Laidlaw Bale Tie Co., Ltd., Hamilton, Ont.
WIRE CLOTH
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*C. H. Johnston & Sons, Ltd., Montreal, Que.
WIRE, feeder and trolley
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
WIRE GUARDS
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*C. H. Johnson & Sons, Limited, Montreal, Que.
WIRE, insulated electric
*Northern Electric Co., Ltd., Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
WIRE, weatherproof
*Northern Electric Co., Ltd., Montreal, Que.
*Standard Underground Cable Co. of Canada, Ltd., Hamilton, Ont.
WIRE ROPE
Canada Wire & Iron Goods Co., Hamilton.
*Dominion Wire Rope Co., Ltd., Montreal, Que.
*The B. Greening Wire Co., Ltd., Hamilton, Ont.
WIRE WORK
*C. H. Johnson & Sons, Limited, Montreal, Que.
*Canada Wire & Iron Goods Co., Hamilton, Ont.
*The Geo. B. Meadows, Toronto Iron & Brass Goods Works Co., Ltd., Toronto, Ont.
WIRING DEVICES
*Northern Electric Co., Ltd., Montreal, Que.
WOOD
Standard Fuel Co., Toronto, Ont.
WOOD BORERS
*Canadian Ingersoll-Rand Co., Ltd., Sherbrooke, Que.
*Canada Machinery Corporation, Ltd., Galt, Ont.
*Canadian Ingersoll-Rand Co., Ltd., Montreal, Que.
WOOD PRESERVATIVES
Sturgeons Limited, Toronto.
WOOD PRINTERS
Barchard & Co., Ltd., Toronto.
WOOD PULP, mechanical
La Cie de Pulpe de Chicoutimi, Chicoutimi, Que.
WOOD SHOP, general work
*Canadian Rumely Co., Ltd., Toronto, Ont.
WOOD SPLIT PULLEYS
*Dodge Mfg. Co., Ltd., Toronto.
*The Goldie & McCulloch Co., Ltd., Galt, Ont.
WOOL
*H. V. Andrews, Toronto, Ont.
WOOD TURNING
Canada Spool & Bobbin Co., Ltd., Walkerton, Ont.
WORSTED COATINGS AND SUITINGS
Rosamond Woollen Co., Almonte, Ont.
WRAPPERS, book, bottle, etc.
*The Thompson & Norris Co. of Canada, Ltd., Toronto, Ont.
WROUGHT IRON PIPE
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
WROUGHT PIPE
*The Steel Co. of Canada, Ltd., Hamilton, Ont.
YARNS, cotton
Hamilton Cotton Co., Hamilton, Ont.
ZINC
Consolidated Mining and Smelting Co., of Canada, Ltd., Montreal, Que.
ZINC, electrical
*The Canada Metal Co., Toronto.

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Cellboard is the proper name for what is commonly called corrugated board

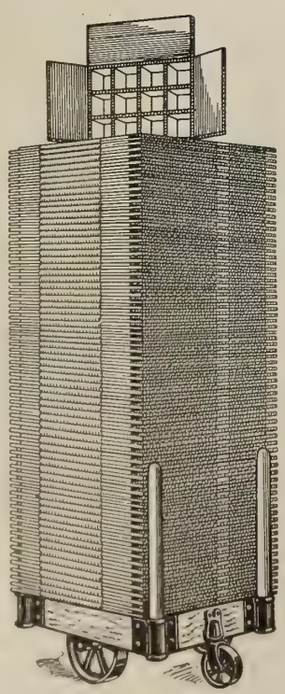
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